If centre to violet, increase the micrometer setting.

3

ome Temp. ....

ocus .....

ome Temp. ....

Hour Angle End	

ome Temp. .....

ocus .....

ome Temp. .....

Transparency Conditions .....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
						David Dunlap Observatory	
						74" Logbook	
						Vol 33	
						Plate Nos 27358 – 27849	
						Jan 1964 – Oct 1964	

5

Date Jan 15/16, 1964 Wed/Thu **Observer** Mg, VW. Lg, Sm — Be, VW **Julian Day** 2438410.

⊙ 294 53 17.1 3667.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
311 - 2820	12, 235	01h 58.2	+02° 56′		6/6/33	22		18^40	a, b, c	
2835	13, 043	02 05.8	-00° 46′		7/5/33	"		19^20	a, sky	
2836	16, 141	02 33.6	-03° 42′		7/5/33	"		19^45	a,	
2837	15, 318 ∫ Cl*	02 26.3	+08° 78′		6/5/33	14		20^05	a	
~~2838~~	~~22, 211~~	~~03 22.0~~	~~+06° 18′~~		7/5/33	28		20^35	a, b, sky	
2839	32 923 104 Tau	05 04.4	+18° 36′		7/3/33	"		21^20	a, b	
2840	32, 529	05 44.7	+01° 10′		7/5/33	"		21^50	a, b	
2841	43, 162	06 12.3	-23° 51′		7/5/33	"		22^30	a, b, sky,	
27358	HR 57/10	05 1.45	+13° 13.0		725	II a 0	016	-6.7	23h 51′	

Dome Temp. 21°F 17³⁰ EST: voltage : 700v

Focus ~~16.40~~ 15.54 CO_2

Dome Temp. .....

Transparency Conditions ..... good .....

corrected 23.7.64.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
~~00 20 W~~							
00⁴⁸ W		3"	5.87	dG1			
00⁴² W		3"	6.92	G2 V			
00⁴⁵ W		4"	6.82	G2 IV			
01²¹ W		4"	4.27	B9 III			
00²⁹ E, 00¹⁸ E		2"	6.97 ~~6.48~~	G2 V F5m		21⁰⁰ : excellent, only low in N' over city possibly	some legs
00⁰⁸ E, 00⁰² W		4"	5.64 6.64	G4 V		21⁴⁵ : still very excellent low to horizon	
00⁰⁶ E, 00⁰⁴ W		3"	5.94	dG4		22⁰⁰ : fair wind building up	
00⁰² W, 00¹⁴ W, 00²⁵ W		4"	6.37	G5		22³⁰ : good, southern horizon section improved considerably	
						HD 43,162 drifted much	
			8.8? to 9.4	F6 III +A5 V		YYCM: set 5, §504 EXMT at 19 Abhyankar -	two weak guiding pos comp during centre for to red!
						Setup OTB Focus test.	
						Clouded over 01⁴10ᵐᵐ	
Be careful in setting + recording focus!						Close up.	

Date Sat/Sun 18/19 JAN 64 Observer McD- Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I

Focus

Dome Te

Focus

Dome Te

Hour An End

Focus setting was 15.54 not 16.40

Dome Temp. 31° F

Transparency Conditions .....

Focus 15.22 Temp 0.5°C

Clouded over before I finished opening up!

Dome Temp. .....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality

9

Date Tues-Wed Jan 21/22 1964 **Observer** VW DG – VW HV **Julian Day** 2438416.
⊙ 300 59 51.1 3662.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27359	HD 16066	2^h 29.8	+67° 38	I-25	IIaO6	set .008	+3.5C.	18^h 46	21^h 12	1
27360	HD 37171	5^h 31.5	+10° 58'	"	"	"	"	21^h 22	23^h 30	2
27361	HD 67110	8^h 1.45	+2° 13	"	"	0.016	"	23^h 44	3.58	3
27362	HD 103095	11^h 47.2	+38° 26'	"	"	.008	"	4.15	5.05	4
27363	HD 131861	14^h ~~29~~ 29.9	+45° 43'	"	"	.008	"	5.28	6.54	1
	Focus Test		OTB							

1

Dome Temp. +39°F

Focus 15.16 set

Dome Temp. .....

Transparency Conditions Clear

A few clouds before dawn.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.		REMARKS		Quality
2h 20W	+67°56'	0	7.7	F2II	6-6-6	set 5	vdB S.B.	Trouble with exp. meter. sens. 8 8540 8568	fine
1h 40W	+11°04	0	7.59 5.98	K5III	6-6-6	set 5	vdB SB	sens. 7 8570 8586	fine Comp wk
3h 39W	+2 04'	0	8.8 6.9 4	F6III +A5V	33-3	set 2	YY CM: Eclips. B. Abhyankar	sens. 8 8598 8612	fine guid in vio. comp wk
1h 00W	+38.00'	1	7.3	G5	6-6	set 5	STD VELOCITY	sens 7 8615 8631	strong comp wk
0 15E	45 28	1	7.64	F3	6-6-6 20/16	set 5 11 9	sp. binary (KAF-5)	sens 8 8633 8663	fine guid in vio OK slc tomed

1 P.H. LOADED

all good plates!!

11

Date Nolan 27/28 Jan - '64 **Observer** RW vaB 9 Cl **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
312-2842	7 Cas	00 46.9	+57°38'		6/4/33	28		18h 44m	a,b	
312-2843	HD9407	01 32.1	+68°46'		7/4/33	28		1905	a,b sm	
312-2844	109 Psc	0143	+1954		7/4/33	28		1938	a b sm	
312-2845	HD12235	0158.2	+0256		7/4/33	28		2015	a b sm	
312-2846	HD18757	03 00.9	+6136		7/4/33	28		2050	a b sm	
312-2847	HD22711	03 33.0	+0618		7/4/33	28		2120	a b sm	
312-2848	HD 30455	04 46.5	+18°40'		7/4/33	28		2155	a b sm	
312 2849	109 Tau	0504.4	+18°36'		6/5/33	28		2235	a b sm	
312-2850	χ^1 Ori	0552.2	+20°16'		133	28		2315	a b	

Dome Temp. ..... V 700 } 17:45
Focus ..... CO_2 i-
Dome Temp. .....

Transparency Conditions ..... very fine, full moon
2300 cloudbank low i-SW
2335 clouded out

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0:00 + 1:10 W		5"	3.45	50 V		A+B	
1:50 W + 2:00 W		5"	6.53	56 V			
1:10 + 1:20 W		5"	6.17	dg4			
2:30 + 2:40 W		3"	5.87	dg1			
2:05 W + 2:15 W			6.60	54 V			
2:00 + 2:10 W			6.48	50			
1:30 + 1:40 W		5"	6.92	52 V			
1:45 + 1:55 W + 2:05 W		5"	5.64	54 V		A+B	
1:35 + 1:45 W			4.41	50 V			

Echo II sighted Jan 27, 1964
zenith 18:25
disappeared in N at 18:45
polar orbit mag +0
Fe 24

13

Date Tue-Wed. Jan. 28/29, 1964 Observer Sm D - Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
313-2851	HD 9540	01h 31.6	-24° 21'		7/4/33	28		18h 15	18h 24	
2852	10,697 1095:c	01h 45m	+19° 54'		7/4/33	"		18h 50m	c, b, a, b'	
2853	16,318 5 Cet	02h 26.3	+28° 18'		5/6/33	28		19h 05m	a	
2854	18,757	03 00.9	+61° 36'		7/4/33	"		19h 40m	c, b, a, b'	
2855	18,936 8 Per	03 02.0	+53° 23'		5/5/33	"		20h 15m	a, b, c	
2856	19,281	03 54.0	+[illegible]° [illegible]'		6/2/33	"		21 00	a, b, c, b', a'	
2857	17,924	04 [illegible]52	-[illegible]° 58'		6/6/33	"		22 20	a, b	

Dome Tem
Focus
Dome Tem

Hour Angl
End

Dome Temp. +18°F CO_2, voltage 7.22 . 17.50 Transparency Conditions Very good

Focus

Dome Temp. full moon

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
		5"	6.92	K0			
01°W 01°W		5"	6.17	164			
01°W		7"	4.27	B9 III		19m. smaller h₂ only 4 pt scan	
01°W 01°W		4"	6.60	E0 E		43 Vir, 57 drifted apparently in from a-t	
01°W 01°W 02°W		3"	2.91	F5		20m: some clouds moving from N	
00°E 00°E 00°E		4"	6.59	A50		21m: 42 Vir, good [illegible]	
00°E 00°W		4"	6.33	F5		25m: some thin light fog moving in from N ←	
						32m: fog appearing [illegible]	
						33m: fog thinning [illegible]	
Echo II	6:15 ~1h east of meridian					Closed 23:25	
	8 [illegible] east						
						Note: [illegible]	
						2 Please [illegible]	
						0139 [illegible]	

15

Date Thu - Fri, Ja 30-31, 1964 **Observer** L VW / VW Sm / VW Re **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
314- 2858	13,043	02 05 8	-00°46'		7 5/33	28		17[illegible]	[illegible]	
2859	12,318 STANDARD STAR	02 [illegible]	+03°19'		6/4[illegible]	28		18[illegible]	[illegible]	
2860	20, [illegible]	[illegible]	+37°15'		6/5/32	28		19[illegible]	[illegible]	
2861	23,021	05 05.7	+08°[illegible]		[illegible]	28		20[illegible]	[illegible]	
2862	34,411 \ Aa1 RESOLUTION TEST	05 15.6	+3°34'		[illegible]	28		20[illegible]	[illegible]	
2863	" "	"	"		6/5/33	24; 20; 16; 12		21[illegible]	a, b, c, d	
"	" "	"	"		6/5/33	8; 4; 32; 40;			e, f, g, h	
2864	64,674 TRg A3	07 50.1	-13°46'		6/5/33	40 [illegible]		22[illegible]	a, b, sky	
27364	[illegible]	10° 31.9	+00° 33'	I-25	II-AO	[illegible]	-1 C°	00h 53	01h 50	2
"	"	"	"	"	"	"	"	01h 55	03h 05m	4

Dome Temp. 29°F

Focus 15.19

Dome Temp. 25°F

Transparency Conditions ... Very good

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
00°57'W							
2°00"W		3"	6.92	G2V			
1°W		7"	6.97	G2V			
1°W.00°W		8"	6.79	F8			
"E.00"E		4"	6.16	G2			
0°W.00°W		7"	6.71	F8			
0°W.00°W.00°W.01°00"W		"	"	"			
1°W.01°19"W.	11°57"W 01°[illegible]W	"	—	"			
19"E.00"W		6"	5.79	G1V			
0h42m5sE	+60°19'	1-2	7.37	F8	6 6	Sol 3	Exp. Mir does not work may be the slit is open.
0h42m48sW	+60°19'	2-3	"	"	6 6	Sol 8	

Clouds from South Clear 1004h00

17

Date Sun/Mon, Feb 2/3, 1964 **Observer** 5m Mee – Hr **Julian Day** 2438428.
@ 3 13 11 16.2 3651.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
315 – 20.5	9.540	01h 31.6m	-24° 31'		7/5/33	28		7h 50	8 =	
2166	13.043	02 05.8	-00° 46'		7/5/33	28		19 55	2.5 sky	
[illegible]	16.111	02 [illegible]6	-03° 41'							
21364	HD 37171	5h 31.5m	+10° 58'	I-25	IIaO E	.008	-2°C	22h 22m	0032	-1
27365	" 89363	10 13.6	+18 13	"	"	"	-2.2	0053	0341	2
27366 {	" 107053	12 13.5	+33 18	"	"	.01	-2.2	0354	0536	3
	7 cms	) →	07B							
	Mem emulsion label used. Feb 2 →		IIaO B		2AO C1 L3 49 45					

Dome Temp. 22 °F no EQ voltage 700v ! 10 20 55 Transparency Conditions Very good

Focus 15.18 0520 < 1 mds

Dome Temp. .....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
		1	6.92	KO		reversed the telescope; star [illegible]	
35° 21' N. 31° 05' N		5-12	6.92	G0 V		seeing variable and extremely poor!	
			6.62	K5 V		stars keep jumping out of [illegible]	
						31° 05' [illegible]	
						[illegible]	
0330 W	+11° 03'	0	7.59	K5 III	8-8-8	sel 5 vis SB	Sep 7 (8729) 8741
0157 W	+17 56	000	6.62	A0	6-6-6	" 5 KA 9 X 2	#7 8743 8755
0153 W	+32 58	00	6.82	A5	6-12	" 5 " "	#7 8756 8763
					20/15	" 9	
						3 P.M. Limit 78	

19

Date Feb 3/4 Nonlus 1964 Observer vB - Julian Day 2438429.

⊙ 314 12 07.5 3650.4

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	H
316-7867	ξ^2 CET	02 26.2	+08 18			6/4/33	28	18.20		
316-7868	HD23[illegible]/30	03 42.5	+63°15'			6/4/33	28	19.00		
316-7869	104 Tau A+B	05 04.4	+18°36'0			6/5/33	28	19.28		
316-2870	HD38858	05 46.8	-04°06'			6/6/33	28	20.00	absv	
316-2871	HD13043	02 05.8	-00 46			5/7/33	28	20.27	absv	
27367	HD 37171	05 31.5	+10 58	1-25	Ba02	608	-6°	21.01	22.24	2
	Focus Test									

Dome Temp. 23° F

Focus ?

Dome Temp.

Cor in 750V } 16:30

Transparency Conditions Fine
windy, image motion

ECHO I 7:28 EST
30° above W
Langley

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
00 38W	+05 5W	3"	4.27	1391 II		ext. ST . Drifted out	
00 05 E	+00 05W		4.79	F5			
00 55 + 00 45 E			5.64	54 V			
01 01 E + 5 G E			5.46	dG4			
03 02 + 03 12 W			6.92	52 V		Clouded out!	
01 30 W	+11 01	1	7.58	[illegible]	6-6 30/10	ext 5 V3 55 CLOUDS #8 8774 8797 OK	3rd. windy

Closed up
22:30
2 PH-PE

5/6' HV

Date Feb ~~4-5~~ Wed Thurs. 1934 **Observer** mcl Lg Sm — HV **Julian Day** 2438431.

⊙ 316 13 47.4 3648.6

Plate No.	Object H.D.	R.A. 1900 64	Declination 1900 64	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
317-2272	16,141	02h 33.6	-03° 42'		6/6/33	28			to, sky	
2873	K, 318 Eclipse	02 26.2	+08° 18'		5/6/33	28	voltage: 750v	18[55]	a	
2874	30,649	04h 49.3m	+45° +9'		6/6/33	28	" 750v	19[00]	a, b, sky	
2875	31,857	05 +0.2	-04° 18'		6/6/33	28	" 700v	20[00]	a, b, sky	
2876	16,141	02 33.6	-03° 42'		7/5/33	28	" "		a, b, sky	
2877	50,692 37 Ori	06 53.1	+23° 25'		6/5/33	28	" 750v	21[00]	a, b	
2878	51,447 ζ Gem	06 55.2	+20° 08'		6/6/33	28	" 700v	22[00]	a, b	
2879	65,228	07 55.4	-22° 48'		6/5/33	28	" "	22[38]	a, b	
2880	41,830	07h 16.7	-12° 31'		6/6/33	28	" "	23[20]	a, b, sky	
						.008	+3.0			
27368	HD 91948	10 31.9	60 38	I-25	IIaOb	"	"	00[41]	01[23]	✓
27369	" 91954	11 12.4	+26 01	"	"	"	"	01[16]	02[00]	✓
	Focus Test									

Dome Temp. 38°F
Focus 15.24
Dome Temp.

CO_2 in
voltage 700 v ∫ 17²⁰ EST

Transparency Conditions ..... excellent even from here
0130 V. Thin Cirrus
0245 Solid Cloud.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
		6"	6.82	G5 IV		focussed often, also changed voltage to 750v here	
01²¹ W		8"	4.27	B9 III			
00²⁴ E, 00¹⁰ E		3"	6.97	G1 V-VI			
00⁴⁶ E, 00³⁵ E		5"	5.96	dG4			
03²⁷ W, 03¹⁸ W		6"	6.82	G5 IV			
00²⁷ E, 00¹⁶ E		7"	5.74	dG0		21⁰³: a cloud [illegible]	
00⁰² W, 00⁰⁴ W		4"	6.33	[illegible]	←	22¹⁰: [illegible]	
00²⁰ E, 00⁰² E		7"	4.20	[illegible]			
00⁰² E, 00⁰⁸ W		4"	6.00	G8 V		23⁰⁵: [illegible]	
						[illegible]	
00 18 E	60 20	1	7.37	F8	7-7-7	Set 5 N-Spect. Bin. #8 8813 8245	
00 19 W	+25 42	0-1	7.36	A2	7-14	" 5 KA B/8 #8 8847 8262	
					20/15	" 9	
						HBH: F7	

Date Feb 9/10 Sun/Mon '64 Observer HW - Julian Day 2438.435.

0320 16 55.7 3644.4

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27370	BD+47° 781 focustest	3h 6.4	+47 43.5'	C-25	IIaO	slit .012	-6.5	1900	2125	

Dome Temp. 16

Focus 15.12

Dome Temp.

Transparency Conditions

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
3 1/2 m W	+48° 0.0	0"	8.5	K	5-A-5	(Thread set .008) set 5 Ed. Bin (F) # 8888/8889. set 9.	Comp check good - 1 set c to red
						Clouds starting in at 2100 closed up 2130.	

25

23 20 { δ motion cord tangled in clock drive

Re

Date Feb 10/11 Night **Observer** vdS - McC **Julian Day** 2438436.

⊙ 321 17 40.1 3643.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
318-2881	} Cet	02 26.2	+08 18'		5/6/33	20		18 34		
318-2882	HD 30649	04 49.3	+45 49'		6/6/33	28		1903		
318-2883	γ' Ori	05 52.2	+20 16'		6/4/33	28		1935	ab	
318-2884	HD42618	06 10.1	+06 50		6/6/33	28		1958	abs	
318-2885	HD42807	06 11.2	+10 39'		6/6/33	28		2025	abs	
318-2886	HD43587	06 15.4	+05 07		6/5/33	28		2052	ab	
318-2887	56 Aur	06 44.7	+43 37		6/5/33	28		2118	ab	
318-2888	37 Gem	06 53.1	+25 25		6/5/33	28		2142	ab	
318-2889	HD52711	07 01.2	+29 24		6/5/33	28		2203	ab	
318-2890	9 Pup AB	07 50.1	−13 48		6/5/33	28		2227	abs	
318-2891	HD65228	07 55.4	−22 48		6/4/33	28		2256	a	
318-2892	HD65583	07 58.3	+29 10		7/4/33	28		2339	abs	
27371	HD 91948	10h 31.9m	60° 38'	I-25	IIaO	.008	−7.8°C	00h 54m	01h 49m	2
27372	"	"	"	"	"	"	"	02h 06m	03h 10m	3
	Focus Test									

Dome Temp. 15°F
Focus 15.10
Dome Temp. 13°F

V=750 } 1745
CO_2 in

OK but Ci Low in Mid S.

Transparency Conditions No more

21:30 Fine
02100 Fine
03:00 Clouds moving in from north

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0125W		e"	4.3	B9 III		Ext. SJ	
0040E	+0036	8"	6.97	S1 IV-V			
0110E	+0100E	6"	4.41	S0 V			
0104E	+0054E	6"	6.87	S4 V			
0040E	+0030E	5"	6.42	S6 V			
0015E	+0005E	5"	5.70	dS0			
0020E	+0010E	6"	5.23	S0 V			
0005E	+0005W	6"	5.74	dS0			
0010W	+0020W	6"	5.92	dS2			
0015E	+0005E	8"	5.70	dS1 V			
0040W	+0020W	6"	4.20	dS2:			
0050W	+0100W	5"	7.00	S_E V			
00h17mW	+60° 19'	1	7.37	F8	6-6-6	Set 5 N-Spect Binary	#8 {8900 8935
01h38mW	"	0-1	"	"	6-6-6	" 5 "	#8 {8937 8972
					20/16	Set 9 Clouded over 03:15	
						1 P.H + 4	

Date Feb 11/12 Tues/Wed, 1964 **Observer** Hr Sm VB — Hr **Julian Day** 2438437.
⊙ 322 18 23.4 3641.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
319 – ~~2893~~ 2893	42, 618	06h 10m.1	+06° 50′		7/5/33	28		19 15	2, 6, 0½	
2894	42, 807	06h 11m.2	+10° 39′		7/4/33	28		20 15	2, 6, 0½	
2895	43, 587	06h 15m.4	+05° 07′		6/6/33	28		23 50	0, 6	
2896	47, 105 6 Geminorum	06h 35m.7	+16° 26′		6/4/33	28		[illegible]	2	
2897	52, 711	07h 01m.2	+20° 34′		6/6/33	28		[illegible]	[illegible]	
2898	60 203	07 34.7	+05 57		6/6/33	28		22 42	[illegible]	
2899	66242	07 59.8	−06 14		[illegible]/33	28		22 30	[illegible]	
2900	70, 110	08 11.4	−00° 48′		6/6/33	28	[illegible]	[illegible]	[illegible]	
27373,	HD 91748	10 31.9	60 38	I.25	IIaO	OG2	4.0	0010	0112	H
~~27374~~ 2,	"	"	"	"	"	"	"	0113	0303	
	Tues Tot		0713							

Dome Temp. 25°F
Focus 15.15
Dome Temp.

CO_2 in
voltage 700 ∫ 19^00 EST

Transparency Conditions 18^00: clear but faint wisps here and there
19^05: O.K. but not excellent
5" lunar rising ~17° E

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01^18 E 01^02 E		3"	6.87	G4V			
00^30 E 00^25 E		4"	6.42	G6V			
00^07 E		5"	5.70	dG0			
00^0 E		8"	4.95	A0IV		21^00: clear	
00^18 E 00^37 W		5"	5.92	dG2			
00^1 E, 00^23 E		4"	5.90	F8			
00^38 E 01^14 E		5"	6.32	G0			
00^02 E 00^21 W		5"	6.17	G0			
00 17 E	6020	0-1	7.37	F8	7-7-7	Set 2 N-Spect. Bin. #8 8996 9027	fair
c135 N		0	"	"	7-7-7	" 6 " " " #8 9028 9062	fair
					20/15	" 9	dawn
						4 Pl. + 12!	

Date Feb 16-17 Sun-Mon **Observer** Mt - Hr **Julian Day** 2438442.

⊙327 21 38.8 3634.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27374	HD 37171	$5^h 31.^m5$	$+10° 58'$	I 25	IIaoh	set .008	-2°C	18:55	21:20	1
27375	HD 67110	$8^h 1.^m45$	$2° 13'$	I-25	IIaoh	set .016		21:35	0:05	2
27376	" 91948	10 31.9	60 38	"	"	.008	-2.0	0123	0225	3
"	"	"	"	"	"	"		0226	0332	"
27377	" 13861	1450.9	45 43	"	"	"	"	0406	0626	4
	Focus Test		OTB							

Dome Temp. 21°F

Transparency Conditions excellent

Focus 15.18

Dome Temp. ---

Delay at midnight while Hr's car removed from crowtrack.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1h 12m W	+11° 02′	2	7.59	K5 III	9-9	set 5 wB bright red S.B. #8 {9071 9085	good-1 wk
0 25m W	+2° 22′	1	9	F6 III + K5 V	6-6	set 5 Algyankar ecl. Bin. meter ran out of counts #9 {7057 7	weak good poor
0 17 W	60 20	0	7.37	F8	7-7-7	" 2 N-Spect. Bin. #8 9093 9126	fine
0 22 3 W	"		"	"	7-7-7	" 8 " #8 9127 9157	fine
adjusted 0 1 01 W?	45 27	0	7.64	F3	7-7-7	" 5 Spect. Bin. (K+F5) #8 9161 9176	good
					20/15	" 9	OK si c to mod

31

Date Thurs Fri Feb. ~~21-22~~ 20-21/64 Observer L - RQ Julian Day 2438446.
⊙ 331 23 45.1 3626.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27378	40.65583	07 57.3	29 31	I-25	IIAoB	set .008	−2°C	21 06	0h14	1
27379	(2 UMa	10h 55.8	+56° 55'	I25	IIAOB	.033	−2°	01 30	0215	2
	OTB	focus to L								

Dome Temp. 21°F

Focus 15.17

Dome Temp. 16°F

Transparency Conditions ..... Light cirrus.

Almost completely cloudy when [illegible]

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2h 54m W	29 21	0	7.9	G7	6-6-6	Std. Vel. Set 8 {9189 9229	Some emission spectrum strong 1 strong no stellar spectrum
0h 9m W	56 34	0	2.37	A1V	18	50 Scans since 21h00 EST. Set 8 { /	OK
					21/15	↖ MΩ EW Program	
						2 PH hooded slit pier	

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Date Feb 21-22 Observer L SM MT Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
320 - 2901	42, 618	$06^h\ 10.1^m$	+06° 50'		7/4/33	28	volt. 750v	20^{00}	a b sky	
" 2902	STANDARD 47, 105 86em	$06^h\ 35.7^m$	+16° 26'		5/5/33	14	700v	20^{40}	a	
2903	"	"	"		5/4/33	28	"		a	
2904	60, 803	07 34.7	+05° 57'		6/6/33	28	"	21^{20}	a, b, sky	
2905	74, 874	08 44.9	+06° 33'		6/4/33	28	"	22^{15}	a, b, c	
2906	81, 809	09 26.0	-05° 55'		7/3/33	28	750	22^{50}	a, b, sky	
2907	81, 858	09 26.6	+09° 13'		7/3/33	28	750	23^{25}	a, ~~b, sky~~	

Dome Temp. 15°F CO_2 : 1940 EST Transparency Conditions 20°° : night of doubtful photom. quality

Focus ..... voltage 700v

Dome Temp. ..... first quarter full moon 25° all down sky.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
[illegible] E. 05° W		7"	6.87	G4V		20°°: [illegible] much haze in N and up some	
		12"	1.95	A0V		trees [illegible]	
00° W		"	"	"		21¹⁵: O.K. less haze	
00³⁸ W, 00¹³ W		4"	5.33	F8 V			
00³⁴ E, 03³⁴ E, 00¹⁴ E		6"	3.38	F8		22²⁵: night improved; less haze now ready	
00³⁶ E, 00²⁶ E		4"	5.25	G2V			
00¹ E		3"	5.40	B-V=0.60		22⁵⁵: [illegible]	
						23⁵⁵: light cumuli from N moved quickly over W, S	
						patches of cirrus show up too in E	
						clouds gone N-E. 2350.	
						complete clouds —	

Sat - Sun

Date Feb 22/23 1964 **Observer** HW - MCA **Julian Day** 2438448.

Sun @ 333 24 37.0 3623.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
27380	BD +47 782	3^h 06.1	+47° 52'	I-25	IIaoB	.008	-4	1855	1950	3
27381	HD 37171	5^h 31.5	+10° 58'	I-25	IIaoB	.008	-4	2005	2140	4
321-2908	HD 65, 228	7^h 55.4	+22° 48'		7/3/33	28	70°F	22[00]	a, b	
" 2909	70, 110	8^h 18.4	+00° 48'		7/4/33	28	70°F	22[36]	a, b	
" 2910	76, 151	8^h 52.5	-05° 18'		7/4/33	28	70°F	23[13]	a, b, c	
" 2911	84, 117	9 40.6	-23° 45'		7/3/33	28	75°F	23[35]	a, b, c	
27382	HD 91948	10^h 31.9	+60° 38'	I-25	IIaoB	.008	-4.2°C	01[h]08[m]	01[h]58[m]	1
"	"	"	"	"	"	"	-4.0°	02[h]00[m]	03[h]14[m]	"
27383	HD 114725	13^h 07.3	+16° 40'	"	"	"		03[h]49[m]	05[h]49[m]	2
	Focus Test	OTB.								

Dome Temp. 23 — CO_2 in valve 700v : 21° EST — Transparency Conditions Good - ~1900.

Focus 15.15 — photometrically D.N.

Dome Temp. 15 — light cirrus (02:30 thin cirrus clouds)

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS		Quality
2h 30m W	+48 04	0	6.7	G5III	6-6-6	set 5	α Persei	#7 {9317 9333}	strong
1h 57m W	+11° 01	0	7.59	K5III	8-8-8	set 5	vdB 5B	#7 {9335 9347}	faint
00m W. 00m W		6"	4.20	B-V: 0.12					
00m W		4"	6.17	G0					
00m W. 00m W		4"	5.98	dG3					
00m W. 00m W		4"	4.95	G0V		00m. all good - clear			
1h 13m W	+60° 19′	0+	7.37	F8	7-7-7	Set 2	N - SB.	#8 {9370 9403}	faint
2h 29m W	"	1	"	"	7-7-7	Set 5	"	#8 {9404 9437}	faint
2h 31m W	+16° 20′	1-2	7.76	F2	7-7-7	Set 5	KA 8X8	#8 {9441 9466}	faint
					20/16	Set 9	Clouded over		

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Date Mon-Tues Feb 24/25 1964 Observer Cr Julian Day 2438450.

⊙ 335 25 21.3 3619-3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27384	BD 47° 3172	03 [illegible]	+47° 52'	I-25	IIa-O	.008	-6°C	19.02	20.28	3
27385	α Hem A	07 [illegible]	+32 06	"	"	"	"	20.43		4
								20.55		
								20.57		
27386	HD 58346	07 20.1	-22 43	[illegible]	[illegible]	.008		21 16	22.10	1
	Focus Test									
27387	HD 59363	07 [illegible]	+18 13	[illegible]	[illegible]	.008		23.13		2
27388 F	focus test 12½	corrected Feb 27 '64				focus = 12.66		ITA weak OTE strong		OK

Dome Temp. 11° F

Focus 15.24 − .11 = 15.13

Dome Temp. [illegible]

Transparency Conditions Excellent

21:30 L cloud low in W

22:05 cloud right finish

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
03 16 W	+48 04	000	6.7	1-5 III	18	set 5 α Per Exp not long enough * tube	9496 fine
			1.97	A1 IV	18	set 2 MREW #4 3 sec	thin spectrum fine
					18	5 #4 1½	
00 36 E	+37 00	0			18	8 #4 3½	fine mod.
00 47 W	−22 48	0	5.8	39	6-6-6	set 5 [illegible] -39 cloud! #7	9579
					20/16	set 9	
		0	6.62	A0		set 6 KP [illegible] #8	9594
cloud + fog closed now			cloud up		23:30	* DUST FLAP NOT COMPLETELY OPEN	
		2	PH	loaded.			
		Use	PH 2	ON		SET 5	
DO NOT						used for [illegible] test 27°F	

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Date Thurs Fri Feb 27-28/64 Observer L- Julian Day 2438453.
0338 26 14.0 3614.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27387	BD. 47° 782	13 06.1	47 52	I · 12½	IIAoB	Scf .028	-4.2	19 19	20 39	3
27388	HD 83697	09 35.2	44 39	"	"	.016	-4.4	22 39	23 29	4

Dome Temp. 20°F

Focus 12.66

Dome Temp.

Transparency Conditions Hazy

Thursfield, Changed to 18½, 25 was Foc 15.13 F12.66
" " Foc 23.15 12½ T20.35

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
3 39W	48 04	0	6.7	G5III	3-3-3	Persei Cluster 7 (9600 (9608	very strong comp strong
						Clouds then clearing	
3h 02m W	44 23	0-1	9.72	G8	2-1-2	KAFS Clearup. 10 (9610 (9654	modified, strong partial Focus bad
			ITA			Thin clouds pass 5-W 0:20.	
			no OTB	"		Intermittent clouds, clouded over. Plate underexposed. Mostly	comp very strong
						Loaded F.H. #1, 2, 3.	

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Date Fr/Sat Feb 28/29 1964 **Observer** VCR - GMC **Julian Day** 2438454.

⊙ 339 26 28.1 3612.4

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
~~322-232~~	~~37 6 cm~~	0653.1	+25°25'	1		3.4/33	28	2048		
27889	HD96950	11h04m7	+59°26'	I-12½	IIAOB	.016	-2°C	01:30	05 36	1
	Focus Test	OTC								

Dome Temp. 25°F
Focus 12.66
Dome Temp. 22°

CO_2 in 19:15
V-900

Transparency Conditions ... partly cloudy
01:30 good.
04:10 - large fire on SW horizon

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
		~~6"~~	~~5.74~~	~~d50~~		Clouded out	
4^h 42^m W	+59° 06′	0-1	10.08	65	2-1-2	Set 5 KAFS #3 [9707 9751	strong
					1 1/8	~~set 3~~ Set 1	OK

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Feb 29 / March 1

Date 21 2 ... 1964 **Observer** ... **Julian Day** 2438455.

0 340 26 40.5 3610.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
2912		8h 05m	00°		7/4/33	28	0°C	19h 00		
" 2913	50, 8[illegible]	06 32.1	+25° 35'		6/5/33	"		19h 30		
" 2914	42, 612	06 44.1	+43° 37'		6/5/33	"		20h 00		
" 2914	76, 151	08 52.5	-05° 18'		6/6/33	"		0h 35		
" 2915	81, 309	09 26.0	-05° 55'		6/5/33	"		21h 20		
" 2916	81, 658	09 26.6	+09° 13'		7/2/33	"	70-78°	21h 55		
" 2917	82, 185 11 H.	09 33.6	+35° 59'		7/2/33	"	70	22h 40		
2918	87, 91 BD	09 04.5	+13° 09'		7/2/33	"	80	23h 04		
2919	86, 728 20 LM.	09 58.9	+32° 06'		7/4/33	"	70	23h 37		
2015 27390	BD +45° 1859	10h 38m.3	+45° 12'	I 12½	II A-6	.016	1-5°	00h 32m	02.05	2

Dome Temp. 34°F

Focus 18.65

Dome Temp. 36°F

Transparency Conditions

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
[illegible] W			6.92	G2V			
[illegible] E; 00° E			5.74	K0		"	
		1	[illegible]	[illegible]		[illegible]	
01°45' E; 01°22' E		5"	5.98	dG2		[illegible]	
01°22' E; 01° E		5"	5.35	G2V			
00°57' E; 00°47' E		6"	5.40	[illegible]			
0° E; 00°18' E		3"	5.41	G5V		[illegible]	
00°44' E		3"	1.33	B7V		[illegible]	
00°00' 00°39" W		4"	5.35	G4V			
1h 37m W	+41° 53'	0	9.59	F1	2-3	Set 2 ~~Do not Use~~	2

Do Not use Pt #2 and Set 2 & Set 5

[illegible] CK

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Date Fri-Sat Night 6-7 **Observer** DE **Julian Day** 2438461.
⊙ 346 27 21.2 3601.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
2738 1	BD+30°2175	11h29m.8	+29°53'	I 12	IaO2	.016	+1°C	01 35	0210	3
2739 2	HD 133505	15h02m.2	+29'35	I 12	IaO2	.016	+1°C	0229	0330	2
	OT B Set 2 (diverged	Tele[illegible]	[illegible]			.009				

Dome Temp. 73.1°F

Transparency Conditions Excellent

Focus 12.66

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
[illegible]	+20°37'	2	9.8	G5	3-1-2	KAPS. Sat 3 [illegible] Sens 9 [illegible]	upper 75% good
[illegible]	+79°21'	2+	9.4	F6	2-1-3	KAPS sat-5 [illegible] Sens [illegible]	2 wks
					11/9	[illegible]	2 wks to visit OTB work
						3 of 6 [illegible] Close 10	
						1PH loaded in Pod 6 [illegible]	

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Date Sat. Sun. Mon. 7-8-9 1904 **Observer** Jm **Julian Day** 2438462.

⊙ 347 27 22.4 3599.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27394 P 3	BD +47° 282	03 06.1	+47 52	I-12	Ilford B	.005	+5°	19:20	19:42	1
27395	21,182 Standard	06 44.1	+43° 37'		Cramer Isochrom	28	750v	20 20	a, b, c	
27396	60,803	07 34.7	+05° 57'		Cramer Isochrom	28	750v	21 00	a, b	
27397	21,613	07 50.3	+60° 22'		Cramer Isochrom	28	750	21 20	a, b	
27398 P 4	90 +46° 1904	09 41.0	+44 42	I-12	Ilford B	.005		22:30	00 57	2
27399 F 2	Focus test									2
27400 F 4	Focus test	07.8		I-12	Ilford B	.005	0°			1

Dome Temp. .....

Focus 2.66

Dome Temp. .....

Transparency Conditions ..... Excellent

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
03 [illegible]	[illegible] 04	1	6.7	[illegible]	3-3	set 5 [illegible]	③ fine
[illegible] W. 00[illegible] W	[illegible] N	7"	5.22	SOV		[illegible]	
[illegible]		4"	5.90	F8		[illegible]	
[illegible] W. 00[illegible]			6.54	K68		[illegible]	
01 57	[illegible] 34	0	[illegible] 39	[illegible] 5	3-2-	[illegible]	③ set #1 focus
set D½	From 12.66				10/7	Closing over	
" 4	12.68	OTB			"		
" 6½	12.70				"	Logged P.H. = [illegible]	
" 9	12.72				"		
						Frank: Please [illegible]	
					13-7		

Date Mon Dec 9 [illegible] Observer ..... Julian Day .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27394F3	Focus Test			I-12	IIaO	.005	0°			

Dome Temp. .....

Focus ..... See note

Dome Temp. .....

Transparency Conditions .....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
3 et 0½	12.73				10-7		
" 4	12.74					12.74 assumed to be best as seeing was best at 12.74.	
" 6½	12.75						
" 9	12.76						

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Date Wed-Thurs Mar. 11-12/64 Observer Ko FI Julian Day 2438466.

0351 27 10.5 3592.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	H
27395	β Gem 62509	07 39.2	+28 16	I-12	IIA-B	.008	+1°	20:15	20:15	1
								20:20	20:22	
27395F	O.T.B	Focus Test			IIA-B					1
27396	11 LMi HD 82885	09 29.7	+36 16			.008		20:56	21:04	2
~~275~~	~~BD+11° 1722~~							21:09	21:19	2
								21:20	21:40	2
27397	BD+11° 1722	07 01.6	+11° 16'			.012		22:15	~0:30	3

↑ include time even if clouded out!!

Dome Temp. .....
Focus 12.74
Dome Temp. .....

Transparency Conditions ..... slight falter ground

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0:27 E	28° 08'	1	2.21	K0III	3-3-3	set 3 Yoss pl N.G. NO FE. set 6 9 E 6 Hyp Met. 4 ↑exposed streak	strong well strong good very strong
0:28 E			1		10-7	set 5 center trend	
1:28 E			6.22	G8III	6	Yoss pl Set 1 weather poor due to cutting Seeing 3	1 count
1:13 E					6	" Set 6	2 counts.
0:45 E						Set 9	{99 59 63 99 67 99 52
03:37 W ↑calculated	+11° 07'		8.7	A3	2-	Primary Set 5 difficult to find - very faint.	

Yoss prog. plates spotted twice!!

P.H. 4 loaded in North Pier.

Clouded Out. 0:30

Date Th/Fr Nov 12-13 '64 **Observer** vdB : Ko/Re/Ko **Julian Day** 2438467.
⊙352 27 03.1 3590.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
324 - 2923	8 Gem	06 35.6	+16° 26'		5/4/33	28		19 16	2x	
324 - 2924	χ' Ori	05 52.2	+20 16		6/4/33	28		19 28	1x	
324 - 2925	HD 62613	07 50.3	+80 22		7/4/33	28		19 58	2x+1x	
324 - 2926	HD 66242	08 00.8	-06 14		7/4/33	28		20 32	2x+5x	
324 - 2927	HD 65583	07 58.3	+29 20		7/4/33	28		21 02	2x+5x	
324 - 2928	HD 74874	08 44.9	+06 33		6/4/33	28		21 28	2x	
324 - 2929	HD 81858	09 26.6	+09 13		6/5/33	28		21 51	2x	
324 - 2930	11 LMi	09 33.5	+35 54		6/5/33	28		22 17	2x	
324 - 2931	HD 84737	09 46.3	+46 11		6/5/33	28		22 40	2x	
324 - 2932	20 LMi	09 58.9	+32 06		6/5/33	28		23 04	2x+1x	
27397F	OTB									
27398	BD +45° 1859	10h 38.m3	+45° 12'	I 12"	IIaO	.012	+2°C	00h 12	02h 05	
27399	BD +45° 2399	15h 48.6	+45°00	I 12"	IIaO	.012	+2°C	02h 12	04h 55m	
27399F	Focus test	Hd.					+1°C			1

Focus 12.66 is best again!

left at 12.66

Dome Temp. 428°F CO_2 in } 1800
Focus 12.74 V = 750 }
Dome Temp. ↓ See below

Transparency Conditions Cloud near Horizon, Zenith OK
2030 OK not AOK

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
00 06 E			1.95	A0 IV		Ext. St.	
00 55 W		7"	4.41	50 V			
00 50 E + 00 40 E		3"	6 54	dG8			
00 18 E + 00 08 E		3"	6 32	G0			
00 15 W + 00 25 W		3"	7.00	G8 V			
00 40 E + 00 50 W		-	3 38	dF8			
00 20 E + 00 10 E		5"	5.40	?			
00 05 E + 00 05 W		7"	5.41	G8 IV	V		
00 35 W + 00 25 W		7"	5.07	G3 V			
00 15 W + 00 25 W		5"	5.35	G4 IV			
						can't to Nd at Hf; inclines with end.	
02 55 W	+44°54'	2-	9.6	F4	2-2-2	KAFS (Given ½ rounds) obs seen 9 {0000 00?? (4)	
00 08 W	+44 49	2-3	9.67	F3	2-	(KAFS HINS) (do) seen = {00 33 02 (45)	
set 1	Focus	12.70			8/6		
" 5"		12.62			10/7	Close uV 5.00	
" 7½		12.66			10/7		

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Date Sun/Mon Mar 15-16/64 **Observer** Ko, Cr - Ko Hr **Julian Day** 2438470.

@ 355 26 29.4 3584.7

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27399 F_2	O.T.B					.005				
325-2933	HD 62,613	07° 50.3'	+80° 22'	7/4 I-2	IIa-O		750v	19.15	1 1/2 hr	
2934	HD 72,705	08 36.2	+65° 09'	7/4 I-2	"		750v	20.00	2 hr	
2935	HD 84,737	09 46.3	+46° 11'	6/5 I-2	"		750v	20.40	2 hr	
2936	HD 74,274	08 44.9	+02° 58'				750v	21.30	1 hr	
27400 2.				~~I-12~~		~~.005~~	~~750v~~			
	BD +45° 1859	10 38.3	+45 12	I-12	IIa-O	.012	+5°	22.50		1
27400 1.	HD 92588	10 36.3	-01 13	I-12	IIa-O	.008		23.17	0017	1

Dome Temp. 38° voltage 7.00V 19^00 EST
Focus (12.66) CO_2 in
Dome Temp. ~~28~~ [illegible]

Transparency Conditions
19^30: good photomagnetic
Cumuli in S - SW
20^15: good, wind building to signal in sky

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
						in focus.	OK
00^50 E. 00^38 E		6"	6.34	dG8		19^15: dic fuse test	
00^58 E. 00^46 E		5"	5.64	G0V		focussed 11 units	
~~01^46 E~~ 01^06 E		7"	5.07	G3V		21^25: Cirrus 35° up in E not good, thin	
00^10 W. 00^18 W		8"	3.38	K8		21^55: many cirrus clouds out all over E, SE - gone +	
		0	9.59	I-4	2-	set 8 KAFS TOO FAINT TOO WINDY HD 0096	30 thin
0055W	-01 32	0	7.4	K1	3-3-3	set 2 Std Vel HD 0109 +8 2126	20 thin
						Plate # 2 is loaded.	
						0215 Partly Cloudy TOO WINDY!!	

Date Mon-Tues Mar 16-17/64 Observer Kw, McC Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.E
2740 DF	OTB									

Dome Temp. 34°

Focus 12.66

Dome Temp.

Transparency Conditions

Clouded out 2# 115

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
						set 5	OK
						4R# loaded	
						PH#3 spotted tuned	
						used 2 IIaO baked plates to test D76 and Acufine	

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Date Mar 18-19 Wash. **Observer** Lg - Ko Ko - Hr **Julian Day** 2438473.
⊙ 358 25 36.7 3577.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27401	OTB			I-12						
~~27401~~	~~BD+45° 1354~~	~~09 33.1~~	~~+46° 28'~~	~~I-12~~	~~IIaO Bk~~					
27401	BD 9+45° 1354	09 37.4	+45 11	I-12	IIaO Bk.	.012	16??	22' 50	23 47	1
27402	AD 114762	13. 07.5	+18.02	I-12	IIaO B.	.016	-4.6	00h 52	01 20	
	"			"	"	.008	-4.6	01 23	01 53	2
~~27403~~	~~HD 131861~~	~~14 30.7~~	~~45° 27'~~	~~I-12~~	~~IIaO B~~	~~.004~~				

Dome Temp. 20°C
Focus 12.66
Dome Temp.

Transparency Conditions ~~fair~~ poor

PRISMS found incorrectly set.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
						set 3 Clear & very light snow later - 2 hr	OK - tracked to end of exp. w/o
			9.59	F4		set 7 too faint	
01 3 W	-47° 51'	2+	7.5	A8	3-1-2	set 7 KAFS {0209 0214} (6)	fine, 1 star
00 20 E		0	8.2	F7	2-1-2	set 5 STD. VEL. {0221 0231} (10)	1 star
00. 13 W	17° 4½'				3-3-3	set 9 EX. M.R. CHECK {0232 0237} (5)	fine guid on v.o.
			~~7.64~~	~~F3~~		~~set 5~~	

P.H. #3 Loaded SPOTTED TWICE
" #4 Loaded

2.00 - 3.30 More flurries although sky apparently clear.

61

MAR

Date Thurs-Fri. 19-20/64 Observer K, L – Lg^KO Julian Day 2438474.

Sm

⊙ 359 25 14.6 3575.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27402 F	OTB.			I-12		.008	-3°			4
36-2937	72,905 Tr Uma	08h 36.2	+65°09'		6/6/33	28	700v	20 15 E	a, b, c	
" 2938	84,117	09h 40.6	-23°45'		6/5/33	28	750v	21 10	a	
" 2939	90,508	10 26.7	+44°39'		6/6/33	28	750v	21 40	a, b, c	
" 2940	87,901 Leo	10h 06.4	+18°09'		5/4/33	28	700v	22 15	a	
" 2941	95,122 47 UMa	10 57.5	+40°37'		6/5/33	28	700v	22 45	a, b	
" 2942	97,234	11 10.6	+36°01'		7/5/33	28	700v	23 10	a, b, c	
" 2943	98,030 ν UMa	11 16.3	+31°44'		5/6/33	28	750v	23 40	a, b	
27403	HD 151861	16h 59.7	+46°23'	I-12	IIaD Ilford	.008	-4°	01 37	02 43	3
27404	AD 133965	15 02.2	+29 35	I-12	IIaD Ilford	.012	-4°	03 05	35	1

Dome Temp. 25° CO_2 in voltage 700V ; 1945 EST

Focus 12.6 G

Dome Temp. 21³³: New Moon in W

Transparency Conditions excellent; fair?

Who the hell took the arc lights?

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
					10-7	1) This language is to be deplored. 2) Who did? set 5. — MR.	OK
00⁴⁰ E. 00³¹ E. 00⁰⁰ E		4"-8"	564	GOI	seeing	[illegible] seeing varied from 4" to 8"; star jumped all across slit during	
00⁴⁵ E		10"	49,	GOV	seeing terrible!	"	
[illegible] E; 01⁰³ E	00⁴² E	4"	[illegible]	GIV	21³³: sky v. good still everywhere		
00⁰⁰		10"	1.52	[illegible]	HD	[illegible]	
00²² E. 00⁰⁸ E		3"	2.04	GOV		22³⁰. wind calmed down, sky overcast, seeing [illegible]	
00¹⁶ E. 00⁰⁵ E		3"	6.22	62	1-2	[illegible]	
00¹² W. 00²⁹ W		2"	+2V 2.26	[illegible]	[illegible]	[illegible]	
G					12⁰⁰: haze [illegible] around [illegible]		
00 50E	+V² = 7	2	7.64	F3	3-3-3	SETS KAPS clouds forming from West, [illegible]	
01ʰ 34W	+29 = 0	2	9.43	F6	3-2-2	SETS KAPS wind from N W. 00'30".	
						pH #2 [illegible]	

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see note in "Instructions" for NEW exposure counts as of MARCH 20, 1964. (F.W.)

HW

Date Nov 22/23 September 1964 **Observer** KO - **Julian Day** 2438477.

⊙ 02 33 54.4 3568.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27404F	OTB					.008				
27405	HD 62509	7h 39m.2	+28° 16'	I-12	IIIa-J	.008	+3°C	19:50	1956	1
	ξ UMa								2x	
27406	i UMa	8h 52.4	+48° 26	I-12	IIAoB	.008	+3°C	2055	2100	3
27407	HD 82885	9h 29.m7	+36 16	I-12	IIAoB	.008	+3°C	21 08	2110	2
	11 LMi							21 11	2117	
								21 18	2128	
27408	ν UMa	9h 43.9	+59 31	I-12	IIAoB	.008	+3°C	2137	2142	1
27409	11 LEO	10h 01.9	+17° 15	I-12	IIIaJ	.008	+3°C	2151	2155	2

Dome Temp. 32 non photometric!

Focus 12.66

Dome Temp. .....

Transparency Conditions clouds in NW

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS		Quality
					10-7	set 5.		sl. centre to red
0h 3m E	+23 07	0	2.21	K0 III	3-6	set 2 Voss spotted twice	1/4	good good
					3-6	set 5	1/2	1 string not
					3-6	set 8	1	strong good
0h 12m E	+48° 11	0	3.3	A7 V	6-3	set 2 MK standard (work!)	1/8	1 wk good
					6-3	set 5	1/4	1 string good
					6-3	set 8	1/2	strong
0h 45m E	+36° 00	0-1	6.22	G8 III-V	6-3	set 2 Voss spotted twice	1/2	good good
0h 32m E					6-3	set 5 " numbered 27408	1	fair
0h 20m E					6-3	set 8 "	2	strong
1h 22 E	+59° 14'	0-1	4.3	F2 IV	6-3	set 2 MK Standard	1/8	
					6-3	set 5	1/4	fair
					6-3	set 8	1/2	1 strong
1h 26m E	16° 59'	0-1	3.6	A0 IIb	6-3	set 2 MK Standard	1/8	
					6-3	set 5	1/4	
					6-3	set 8	1/2	fair - 1 string

Date Nov 22/23 cont'd Observer HW – KO Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27410	α LEO	$10^h 03.0$	+12 27	I-12	IIaOB	.008	+3	2202	2206	3
27411	5 LEO	$10^h 11.1$	+23° 55	I-12	IIaOB	.008	+3	2214	2219	1
27412	40 LEO	$10^h 14.3$	+19 59	I-12	IIaOB	.008	+3	2225	2227	2
								2227	2230	
								2230	2240	
27413	BD+45° 1359	$10^h 38.3$	+45 12	I-12	IIaOR	.012	+3	2310	0226	4
27414	HD 131361	$14^h 50.9$	+45 43	I-12	IIaOR	.012	+3	0302	0326	1
27415	HD 149 5920	$15^h 53.3$	+45 15	I-12	IIaOR	.012	+3°	0333	0443	2

Dome Temp. .....

Focus 12.66

Dome Temp. 26°

Transparency Conditions Fair

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS		Quality
3 0h 15m E	+17° 08	0-1	1.21	B7V	6-3	set 2	MK Standard 1/4	
					3-6	set 5	1/2	
					6-3	set 8	1	
1 0h 12m E	+23° 35	0-1	3.82	F0III	6-3	set 2	" 1/4	good
					6-3	set 5	1/2	
					6-3	set 8	1	
0h 06m E	+19° 42	0-1	5.27	F6IV	6-3	set 2	" 1/2	
0h 02m E		0-1			6-3	set 5	1	
0h 08m W		0-1			3-3-3	set 8	2	
4 3 30 W	+44° 53'	0-1	9.59	F4	3-1-2	set 5	KAFS. (Some shifting) #9	{0370 0359
1 0 19 W	+45 28	0-1	7.64	F3	2-2-2	set 5	KAFS	{0371 0371
2 0 36 W	+45 04	0-1	9.25	A2	2-2-2	set 5	KAFS	{ 20
						Pl # 1, 2, 3 loaded.		

Date Mar 23/24 Mon-Tues/64 Observer MR, Ko Julian Day 2438478.

0 03 23 23.0 3566.4

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
27415F	Focus Test OTB.									1
~~27416~~	~~β CNC~~	~~8^h $11^m.1$~~	~~+19° 30'~~	~~I-12~~	~~IIa-B~~	~~.005~~	~~+3°~~			~~2~~
27416	HD 83697	9^h 35 2	+44 39	I-12	IIaB	.012	-3°	22h 08	~01 15	2

Dome Temp. 34°

Focus 12.66

Dome Temp.

Transparency Conditions Faint cirrus clouds thru-out skies.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
					10-7	Set 5	
			~~3.76 K4 III~~				
03 25 W	+44° 24'	R	9.72	G8	2-	~~Set 5~~ Set 7 KAFS 5947 (0551) (30)	fair
always record end of exposure!!						check for condensation by eye & breath on corrector cell by the blind hood. OTS	
						PH #3 is loose!	

Please check plate clamp on camera
It doesn't hold!!!

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Date Fr/Sat Nov 27/28 '64 **Observer** vdB **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
327-2944	χ Gem	06 35.6	+16° 16'	61	5/5/33	20		19h 36m		
327-2945	37 Gem	06 53.1	+25° 25'		7/4	133 28		1959	2×5m,	
327-2946	56 Aur	06 44.1	+43° 37'		6/5	133 28		2026	1×	
327-2947	π^1 UMa	08 36.2	+65° 09'		6/6	133 28		2043	2×8m	
327-2948	11 LMi	09 33.5	+35 59		6/6	133 28		2120	2×15m	

Dome Temp. ..... V=700 1900

Focus ..... Full Moon → No CO_2

Dome Temp. ..... CO_2 in 7000 ofs all.

Transparency Conditions ..... Part Cloudy (Cirrus)

2000 OK

20:30 Thin clouds bl in S.

2100 Sky a bit hazy

2130 Clouds rising fast

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01h14m W			1.95	A0 V		Ext ST	
0115+0125 W			5.74	d50			
0150 W		6"	5.23	50 V			
0015+0025 W		8"	5.64	50 V			
0025 Floods W		7"	5.41	58 IV-V		cloud dogs	

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March 30 1964 - sidereal clock 2^s slow - OK
red marker still on EST - not checked - probably few secs slow SH

Date No/In Nov 30/31 **Observer** VB - 9:22 **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
328-2949	δ Gem	06 35 6	+16°26'		5/6	133 28		19 36		
328-2950	HD76151	08 52.5	-05 18		6/6	133 28		20 00		
328-2951	HD81809	09 26 0	-05 55		6/5	133 28		20 27		
328-2952	HD84117	09 40 6	-23 45		6/5	133 28		20 55		
328-2953	20 LMi	09 58 5	+32°06		6/5	133 28		21 20		
328-2954	HD80 508	10 25 7	+48 59		6/6	133 28		21 44		
328-2955	47 UMa	10 57 4	+40 37		6/5	133 28		22 08		
328-2956	HD97334	11 10 6	+36 01		6/6	133 28		22 32		
328-2957	ζ UMa A+B	11 16 2	+31 44		5/6	133 28		23 09	1 x only	
27416F	Focus Test		OTB							

Dome Temp. ..... CO_2 in } 1830
Focus ..... 750V }
Dome Temp. .....

Transparency Conditions ..... partly cloudy (some Fine polar AIR
2255 Clouds spread
00:30 still cloudy.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01h24m W			1.95	A0V		EXTST	
00 30 +00 20 E		8"	5.98	dG3			
00 40 +00 30 E		5"	4.35	G2V			
00 25 +00 15 E			4.95	G0V			
00 17 +00 7 E		8"	5.35	G4V			
00 20 +00 10 E		6"	6.45	G1V			
00 26 +00 16 E		7"	5.04	G0V			
00 17 +00 7 E		7"	6.32	G2		F42 > 4.5 Std!	
00 15 +00 2 W			4.29 4.75	G0V		Double! clouded out	

4pH loaded. +12

73

Date Mar 31 Apr 1 Tues-Wed/64 **Observer** [illegible] **Julian Day** 2438486.

⊙ 11° 17' 55.0 3550.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
2741.16 F_2	Tau - Tau		OTB							1
27417	HD 59612	7h 25.6	-22° 49'	I-12	IIaO	.004	-2°	19.26	19.285	2
								19:27.5	19:41	
								19h.[illegible]	[illegible]	
27418	B Gem	8h 11.1m	+9°30'					20:23	20:34	3
								20:25	20:[illegible]	
								20 28.5	[illegible]	
329 - 3758	74 274	08h 44.9	+06° 23'		4/6/38	28	70°	20:[illegible]	[illegible]	
3759	[illegible]	09 [illegible]	[illegible]		4/6/38	28	[illegible]	21:25	[illegible]	
3760	37 Sex	11 11.8	+10° 20		4/5/38	28	[illegible]	21:50	[illegible]	
3761	[illegible]	10 06.5	+12° 041		4/6/38	28	[illegible]	22:[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]		5/6/38	28	75°	[illegible]	[illegible]	
3763	[illegible]	11 39.1	+20° 241		[illegible]	28	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	03.37	04.49	1

Dome Temp. +28°F voltage 2 for 20"-25"

Focus ..... CO_2 in:

Dome Temp. .....

Transparency Conditions ..... Clear .....

O.K. –

Check window behind iron arc!

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
					10-7		wants to violet
00.20W	-22°56"	1	4.9	A5 II	3-6	MK Standard Set 3 last Scan. 7	weak
00 25 W		1			3-6	Set 5 2d	good grid
01.01 W		1			3-3-3	Set 7 8	1 string
00:30 (28?) W	+9 16	1	3.8	A1	9	MK Standard Set 3 5	exp. good grading poor fine grid on v/o
00:32W	BE CAREFUL				4-5	5 1	
00:3[illegible]					4-5	? 2	strong grid poor dust on slit
00°W, 00° W				F8	3.38		
00°W, 00° W				G0V	4.95		
00°43 E 00° E				G7 IV	6.92		
00°04' W				B7 V	1.33	22°: good h[illegible] f— high line in sky	
00°W, 00°W				G0V	4.39 1.17 =		
00°W, 00°W				G8 V	5.56		
00 12 E	+46 19	2	[illegible]	K3	3-3-3	2 5 set 5	good grid poor
01 54 W	+57° 17'	2	8.5	F8	2-1-2	10637 2.657 20	
						PH 1, 2, = loaded + 8	

Date April 1-2 (Wed-Thu) **Observer** EL - Ab - [illegible] **Julian Day** 2438487.

⊙ 12 17 05.1 3548.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27421 E	HR 2509	7 17.5	+66 32	12	[illegible]	008	0°	20:16	20:22	2
[27420F	[illegible]									1
27421	a HD 57742		11 °					20:24	20:[illegible]	
"	(HR 2809)		" "					36	20:45	
27420	HR 3470	8h 34.8m	67° 05	12	"	"	"	21:20	21:[illegible]	
	HD 74604							21:30	21:36	
		10h 36.3m	13					21:38	21:[illegible]	
27423	HD 92588	~~8h 39m~~	-1° ~~24~~	12	"	"	"	22:21	22:55	4
27424	HD 116612	B 13.2	68° 5[illegible]					23:15	23:[illegible]	2
								23:24	23:30	1
								23:31	23:[illegible]	
27425	ECrB A	15h ~~56~~ 35.6m	+36° ~~44~~ 58.	12	"	"	"	23:50	23:[illegible]	
	HD 139782							0:07	0:01	
			[illegible]							

Dome Temp. 31°

Focus 12.66

Dome Temp. ..... include spectral type, etc.

Transparency Conditions ..... Good. Clouds at 21:45 Mass of about 22:00.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1:25 W		1-2	6.3	B9	9	Set 9 B8-B9 Set 6 1 comet	1 string guide tends to be center to violet
					99	5	
1:37 W			6.7		9	Set 5 not set 5!! Faint field 1 comet	1 string
1:49 W			6.?		9	Set 1 " 1½ comet	string
1:06 W		1	6.1	B8	9	Set 9 B8 B9	2 time guide
1:14 W						" 5 night star	
1:31 W						Set 1 ✓ corrected! 1½	1 string
0:41 W		1	7.4	K1	4-5	Set 5 Standard Field 5 6 8 4 6 9	strong
1:2 E			6.1	B9	9	Set 9 B8-B9 with D 1 comet	time
1:21 E					9	Set 5 " 1½	string
1:15 E					9	Set 1 1	
3:19 E			5.1	B8n	9	Set 7 } Sp. Binary 1½	strong string do very short
3:13					9	Set 3 } 1	
						OK = 2 is 20000	
when left plates in obs. case ??						Echo I at 21:45 overhead.	

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Date Apr 3-4 Fr/Sat '64 **Observer** vdB / Ne **Julian Day** 2438489.
014 15 19.9 3544.7

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
330-2964	HD 81858	09 26 6	+09 13		6/5/33			19:50		
330-2965	HD 84737	09 46 3	+74 6 4							
330-2965	θ Leo	10 06 4	+ 12 09		4/6/33			20:15		
330-2966	47 UMa	10 57.4	+40 37		6/5/33			20:43		
330-2967	HD97334	11 10.6	+36 01		7/4/33			21.07		
330-2968	HD97561	11 11 8	+20 20		7/5/33			21:37		
330-2969	61 UMa	11 39.2	+ 34 24		6/6/33			22 03		
330-2970	HD103095	11 50 8	+ 26 [illegible]		7/4/33			22 28		
330-2971	HD 104304	11 58.9	+ 10 14		7/4/33			22 54		
330-2972	HD 105435	12 32 0	+ 33 35		7/4/5/33			23:20		
330-2972	BCVn.	12 32 0	+41 23		6/5 33			23 43		
27123 F	OTF	12/8			12.06					
27126	HD133864	15h 00.2m	+29° 35'	12"	IIaOb	0.012	-2°	01h 05m	03h 15m	2
27127	[illegible]	15h 01.2m	+[illegible]° 60	12"	IIa 06	0.012	-2°	01h 00m	03h 15m	1

Dome Temp. 20 °F Co₂ in 1230 Transparency Conditions Fine
Focus 12.2 750 V Very windy!
Dome Temp. 12°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0h 53m E		6"	5.40	–			
			5.07	G3E			
1h 12m E			1.33	B		ext. st.	
1h 35 E + 1h 25 G		5"	5.04	G0E			
0128E + 0112G			5.32	G2			
0100+0050E		4"	6.32	G2V			
0100+0050E			5.32	G1E			
2050+0050E		6"	6.45	G8V			
0013+0013E		8	5.54	dG7			
0015+0015E		8	5.23	G2			
0015+0015E		10"	4.29	G0E			
						DK LAFS Seeing 9 - sk 5	
0h 37m W	+28° 15'	2	9.4	F6	2-2		fine
0h 37m W	+28° 15'	1	9.7	F3	2-4		fine
						5" 20m edge	

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Date April 4/5 Sat/sun '64 **Observer** Ko - McL **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27427 F										

Dome Te
Focus
Dome Te
Hour Angle End

Dome Temp. 24°F

Transparency Conditions

Focus

209 visitors; showed Uranus; Cl, HW, Fl, KJ, MR, Sm.

Dome Temp.

12:00 sky very hazy

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
						Declination controls don't work. Had to pull telescope down by hand. - hard work you ought to try it sometimes!!!	OK
						Sky almost completely clouded over 01:30	

81 April 9/64 Both clocks, 74" dome, correct to within 1^s. SN

Date Apr 9-10/64 Thurs-Fri Observer Ko Julian Day 2438495.

⊙ 20 09 21.6 3534.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27428	HD 92124	10^h 33.1	+45° 22	I-12	IIAo B	.016	+5	19^h 49	20 47	1
27429	BD 45 1869	10 38.3	45 12	"	"	"	+4.8	21 40	23 26	2
27425	Focus test	OK								

Ko - record focus test even when on same plate
- number all plates

Dome Temp. 40 (Cu in 23°
Focus 12.66 Voltage 700 v
Dome Temp.

Transparency Conditions Good.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 54E	45 04	0·1	9.76	K5	1½-1½-1½	1Y AFS Beam 4 10 {5077 5088	
01 43W	44 50	2	9.59	F4	1½ 1½ 1½	" " 10 {0877 0872	
						Cloudy dim Bright Cloud 2 min	

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Dome Temp
Focus 12
Dome Temp

Date Fr/Sat Apr 10/11 '64 **Observer** vdB - Re **Julian Day** 2438496.5

⊙ 21 08 15.6 3532.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.J.	Hour Angle End
331-2974	HD99491	11h34.9m	+03 12 5		7/5/33	28		21 25	2x+5m		0h00+00
331-2975	HD104304	11 58.9	−10 58 9		7/4/33	28		22 05	2x+5m		00 50 6+
331-2976	HD103095	11 50.8	+38 00		7/4/33	28		22 36	2x+5m		00 07 1+
331-2977	β CVn	12 32.0	+41 33		6/5/33	28		23 02	2x		00 27 6+
331-2978	10 CVn	12 43 3	+39 28		7/4/33	28		23 24	2x		00 15 6+
331-2979	HD111395	12 47 1	+25 02		7/4/33	28		23 45	2x+5m		00 05 [illegible]
27429F		OT B Focus test		I-125						2	
27430	BD+29°2751	15h57.m6	+29°42'2	I 12.5	IIaO 0.012		+9°C				
								01h00		3	
27430	BD+29°2751	15h51.m6	+29°42'2	I	IIaO .012		+9°C	01h30	04h33	3	3W

Dome Temp. +35°C CO2 in } 1900
Focus 12.68 V = 750V }
Dome Temp. .....

Transparency Conditions ..... Ci low in west, OK not thick
2200 sky "Light"!

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0100+0050E			6.50	dko		A	
0050E+0040E		8"	5 54	dg 2		drifted out at end	
0010E+0000		5"	6 45	g8 K1			
0027E+0017E		8"	4.2g	g0			
0015E+0005E		4	5.9g	g0			
0005W+0015W		3+	6 31	—			
						Sky cent. to wobble. set at 12.68	centered wobble
						Slow motion Controles fell out of box twice!	
			10.0m	F5			
0130W	+29°40'	1+ to 3+	10.0	F5	2-22	KAFS (with jitter!!) seeing 2 916 916 Set B	
						an exp. on set 5 might have been on plate, was at engraving stage	
					2h30:	Seeing fluctuating from 1+ to 3+ with a period of 5 sec	
					3h30:	Seeing 3+ steady & improving! D=1"	
					Close Up	4h 45 1 PH in Dish	

180 visitors showed Thomas Record of visitors.
25 Fl, CC, M+

Date Sat/Sun Apr 11/12 **Observer** McL-Ab **Julian Day** 2438497.5

⊙ 22 07 07.7 3530.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27431	BD +45 1859	$10^h 38^m.3$	$+45° 12'$	I-12	II aOB	.016	+7.0	$00^h 05$	0101	
27432	HD 139892	$15^h 35.C$	$+3\frac{6}{4}° 58'$	I 12	II aOB	.008	"	$01^h 29^m$	0140	
	& CnBA	"	"	"	"	"		$01^h 41^m$	0148	
27433	BD +29° 2751	$15^h 57.6$	+29 42	"	"	.016	"	$02^h 30^m$	$04^h 30$	
	JTB									

Dome Temp. 38°

Focus 12.68

Dome Temp.

Transparency Conditions 23:00 slight haze
00:00 haze thickening
01:00 haze very thick
02:00 much better
03:30 clouds moving North sky getting hazy

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
3h 22m W	+44° 52′	0	9.59	F4	2-3	Set 2 KAFS #9 {0920 0925	weak
						00:45 1ST haze too thick - can no longer see stars.	
	+36° 47′	0	5.1	B8n	3-6	Set 2 Spec. Binary. (Ab) #5 {0935 0937 (2)	
0h 45m E	"	"	"	"	9	Set 5 #5 {0938 0939 (1)	
1h 07m W	+29° 43′	2	9.99	F5	2-3	Set 5 KAFS #10 {0944 0965 (40)	
					7-5	set 7	CK
						03:50 clouds overhead & moving south	
						04:00 sky completely clouded over	
						PH #1,3 Loaded	
						Camera bumped to head on the [illegible] left by way of the open shutter.	

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Date..... Observer..... Julian Day.....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
						.012	12°			

Dome Temp. .....

Focus .....

Dome Temp. .....

Transparency Conditions ..... 20:25 completely clouded over

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality

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Tue-Wed

Date 6 1 14/15 54 **Observer** 5h 2c — Hr **Julian Day** 2438500.5

KO — KO 025 03 32·0 3523·9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27434	RD 45° 1959			I-12	IIaO-E	.016	+16	19h 55	21h 25	1
~~27434c~~	OT R									
27435	HD 92124	10h 33.1	+45° 22	I-12	IIaO-E	.016	+16	21h 40	23h 14	2
27436	RD +44° 2	11h 33.2	+44° 39	I-12	IIaO-E	.016	+15	23h 21	01 2	-
27437	HD 144579	16 01.5	+39 24	"	"	"	15.3	0212	0229	4
EX. MTR. TEST	"							0221	0239	"
	"							0239	0323	
27438	HD 168322	18h 4.0	+40° 54	I-12	IIaO-E	.016	15.3	03 57	04 09	3
								04 10	04 16	
								04 17	04 19	
27439	HD 176411	19h 55.1	44° 56					0434	04 43	3
								04 44	04 NE	
								04 45	04 52	

Dome Temp. +5°F

Focus 12.688

Dome Temp. +50°F

Transparency Conditions Clear

3:00 Exposure meter removed

EX.MTR. | NEW TUBE (6U8A) | re-soldered conn.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0°	14°53	2	9.79	F5	1½-1½	set 3 KAFS EXPOSURE METER	
			9.76	F5		set 9. DOESN'T WORK	
1h 54W	45° 03	2	9.76	K5	1½-2-2	Set 5 KAFS	
1 33 W	44° 17	2	9.65	F7	2-2-2	set 5 KAFS	
00 26 E		1	7.2	G8	—	" 2 STD VEL 2 COUNTS #7 1039 1041	
0009E	39 14	1			3-3	" 5 " " 4 " " 1042 1046.2	
0036W					—	" 9 " " 8 " " 1047 1055	
00 3 W	40° 55	1	7.1	K0III	3-2	" 2 Voice spilled Thru #7	
00 37W					3-2	" 5 Voice " " " 7	
00 40W					3-2	" 9 Voice " " " 7	
1 03E	15°03	1	5.2	K2	3-2	" 2 Voice " "	
00 5E					3-2	" 5	
00 5E					3-2	" 9	
	why use .21 slit on Y-ss stars??						
						PH #1, 2, 3, 4 looked +6	

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Before using loaded plate holders, check that they are properly loaded + last plate April 14/15 loaded back end.

Date April 15-16 / WINTER **Observer** G Ka Sp Sm **Julian Day** 2438501.5

1920 ⊙26 02 15.9 3521.7

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27440	BD +45° 1859	10h 38.3	+45° 12'	I-12	IIa-G	.011	7.5			
27441	HD 92124	10h 38m.1	+45° 22'	I-12	IIaO	.010	7.5			2
	focus 7 + 0					.008				
27442	HD 139862	15h 35.6	+36° 08'	I-12	IIa-F	long .604				3
	§ G.C.A									
2980	130, 948	14h 42.7	+24° 04'		7/14/33	28	700V			
" 2981	135, 101 A	15 11.2	+19° 25'		7/15/33	28	700V			
" 2981	135, 101 B	15 11.2	+19° 25'		7/15/33	28	700V			
2982	139, 006	15 32.1	+26° 50'		5/15/33	28	700V			
~~2983~~	~~[illegible]~~	~~15 33.1~~	~~+21° 20~~		5/15/33	28	700V			
27443	BD 31° 3751	15h 57.6	+29° 12	I-12	IIaO-K	.016		03h 23	04h 15	4
~~27444~~ F	OTB					.005				
	OTB					.008				
	OTB					.048				

Dome Temp. 42°F

Focus 12.68

Dome Temp. 32°F

Transparency Conditions Good

12^00: good photometrically too

PH # 1 loaded + 6

Window behind Dome is better

Dome ½ normal speed (9 1/2 hrs)

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
00 13W	+44° 5 3	1	9.5?	F5	2-1-2	Set 5 KAFS program 10 1:49	fine
02 17W	+45° 05	1	9.76	K5	2-	Set 5 KAFS 3 over 1.5 in −55/100 counts 10 12:08	2 strong grad pairs A & B violet
					11/8		
00 13E	+36° 45	1	5.1	F8n	9	set 5 F0 5.3. 5	strong well guided
00^45E	00^01E	7'	5.75	K2			
10^17E	00^03E	4'	6.81	G6			
20^16E	00^05	2'	7.?	G7			
		14		A0E		02^10: Wind left [illegible]	
		14"	2.2	A0E		02^53: [illegible]	
						03^10 [illegible]	
						Frank. [illegible]	
			7.99	F5	½	Set 2 KAFS 12:57 12:58	much
	Prisms North					set 3	
	11	normal	11-8			set 10 prisms not changed	
	11	south	11-8			set 8	

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Date Thurs April 16-17/64 **Observer** K — H **Julian Day** 2438502.5
K — H ⊙ 27 00 57.6 3519.4

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27444	BD+45° 1959	10h 38.3	+45° 12	I-12	I a 0 E	.016	48.°	19h 58	22 08	1
F	Focus test		OTE							
27445	BD 45 2134	13h 46.8	44 52	"	"	"	+2.9	22 50	01 32	2
27446	HD 142592	15h 50.3	45 15	"	"	"	+8	0145	03h 11	3
27447	HD 168322	18h [illegible]	+3° 51	"	"	.008	+8	0343	04 09	2
	"							0409 20	04 19 40	
	"							0420	04 29	
27447 F1	Fri April 17		centre to red			focus	12.69			
F2	"		" centre to red				12.67			

Glass replacement + new water added to increase developer volume

Next observer please change focus setting back to 12.66

Dome Temp. 44°F
Focus 12.69
Dome Temp. 40°F

Transparency Conditions fair

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
05 1W	+44°53	1	9.59	F4	1½ 1½-1½	set 5 KAFS plate broken	fine
					5-4	set 6	center to violet
01 27W	44 34	0-1	9.90	F9	1½-1½-1½	set 5 KAFS	fine
03 4W	45 05	0	9.25	A2	1½-3	" 5 "	fine
00 1E	40 57.5	0-1	7.1	[illegible]	3-3-3	set 2 KAFS -	strong
00 32 E					4-5	" 5 "	fine grid
00 27 E					9	" 9 "	fine

1 R.H [illegible] + 11

95 Fri April 17 - both clocks, 74" Dome, correct to within 2 seconds. I.H

Date Fri/Sat Apr 17/18/63 **Observer** vdB **Julian Day** 2438503.5

⊙ 27 59 37.0 3517.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
2744B	+45° 1859	10 38 3	+45 12	12½"	IIaO	.16	18°C	20" 25"	22 35	

Dome Temp. 67°

Focus 12.66 C

Dome Temp. ....

Transparency Conditions partly cloudy

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01h20m ave	+44°53'	1→0	9.5g	F4	2+1L2	KAFS -30 -10 HVSB:- windy! full counts	fine guid.
						clouded over 35 counts, brightening	dust on slit
						2pH loaded	
					√B		
Sat Apr 13					Cu, Ck, Dm	140 visitors	
					showed Moon		
						Dome slats too slowly, please fix	

97 Fri April 24. both clocks, 74" dome, correct to within 2 seconds. SH
or 62 seconds?? SvdB

Date Fr/Sat Apr 24/25 '64 **Observer** vdB **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
333-2982	α Leo	10 06.4	+12 09		5/4/33	28		20.15		
2983	HD 75732	08 50.4	+28 28		7/4/33	28		20 38	ab thin sky	
2984	HD 99481	11 24.9	+03 12.5		7/4/33	28		21 08	ab mostly	

Dome Temp. .....
Focus .....
Dome Temp. .....

CO_2 in } 1900
V = 750 }

Transparency Conditions ..... Fine, Sunspots bitroed
21 IS Isolated clouds

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0^h12^m W			1.33	B7V		Ext. ST.	
1^h45^m to 1^h55^m		8" dwng	5.93	dKO		Northern Compt of wide pair	
0^h15^m E to 0^h05^m E		8" dwng	6.50	dKO		brighter compont of close pair [clouded out]	

99 195 photos placed [illegible] Ad, Mz, Cn, No, Vn.
Echo II in W 20:45 Julian Vernon.

Date Apr 25/26 Sat-Sun **Observer** Ab Ko – Ko **Julian Day** 2438511.5
⊙ 35 47 34.0 3500.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
27448	BD+45° 1859	10h 38.3	+45° 12	I-12	IIaO B	.016	+11.°	23:16	00h 48	2
F	Focus Test		CT 3							
3024–3025	142,262 3046	15h 2.6	+13°20'		8/3/33	28	700V	01m 02.00		
3026	157,347	17 20.9	−02°21'		8/3/33	28	700V	02.35		
2987	103,246	17 37.5	−03°34'4		8/3/33	28	750V	03.15		
2988	172,167 or [illegible]	11 [illegible]	+28 45'		8/3/33	14	750V	03.57		

Dome Temp. 46°

Focus 12.66

Dome Temp. .....

Transparency Conditions ..... good at 22°

CO_2 at 22° : 60° - 5F

using 122 : 30°

Who changed the width of the prisms??? 02 15 good!!

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
04h.05W	44°53	1	9.59	FK	12 1/2 K	set 3 Telescope drifted badly in R.A. when pier West. KAFS below 1508 1543	
						set 9 CALL L when something obviously wrong!!	?
00°37'W	00°31'W		6.10	G2 E		1. Next more star ½ off of slit - in the	
00°34'E	00°31'E		6.28	G5		to one - to predict next system	
00°13'E	00°02'E		6.32	K0		2. amplifier reset to 4 now Offset = 4"	
00°24'E			7.00	A0 E		first time I had correct	
						the amplification 8/2 is the only thing that gave	
						a decent Focus for 3 sec	
						- the star was still for 40 seconds	
						Unable to find star in slit. Ab + Ko tried for an hour. Star showed up as a long slit N-South instead of a spot of light. No slit visible.	

101 Echo II 35° up ≈ W 22:23 EST

Date Dec. 14/17 1964 Sun-Mon Observer CR – HV KD Julian Day 2438512.5

⊙ 36 45 54.5 3498.7

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27 ~~50~~	E9 +45° 1659	10 38.3	+45 12	T-12½	2.0B	.016	14°C	20:09	21:25	3
	FOCUS TEST		OTB			.002				
28 ~~51~~	AD 110501	12 37.5	+34 14	T-12	5.0S	.016		21:51	22:09	4
29 ~~52~~	AD 110743	12 59.1	+34 58	T-12	5.0Z	.016	14°C	22:15	00:21	1
30 TM=R3 I4	HD 149392	15h 50.3	+45 15	T-12	IIa-B	.016	14.0	00:41	02:37	2
	BD +21°2751	15 57.6	+21 12	"	"			22:12	01:12	4
	FOCUS TEST		OTB							

100 cc of xylene added to developer to bring volume up to normal

Dome Temp. 56° — 20:20 cloud [illegible], seeing better; 22 [illegible] better

Focus 12.66

Dome Temp. 52°

Transparency Conditions poor - high cirrus cloud, very hazy, near [illegible] moon (full)

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
00h 56W	+44 53	1	9.59	F4	2-1-2	set 2 KAFS #10 1607 1647	[illegible]
						set 5	[illegible]
00h 29E	+33 54	1	7.7	K0 III	3-3-3	set 5 MR Hi Vel. [illegible] #8 [illegible] 1661	[illegible]
01 52W	+34 33	2	9.9	G5 V	2-1-2	set 5 MR Hi Vel [illegible] #10 1663 1715	[illegible]
00 42W	+45 04	2	7.35	A2	2-1-2	set 5 KAFS #9 1714 1737	[illegible]
[illegible]	29 11	1	[illegible]	F5	[illegible]	5 KAFS #10 1738 1753	[illegible]
					6/4	7	[illegible]

~~PH #1 [illegible]~~ used for deinterlace experiment #274545

*5 [illegible]

[illegible] slit appears to be [illegible]

1 Gerry: Please check slit (per 1 [illegible])

103 Time checked & set by 290 C1L3 49 45

Fri. May 1 – both clocks, 74 dome, correct to within 2 seconds & 4 minute hands of " " were also adjusted exactly.

Date..... **Observer**..... **Julian Day**.....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H

Dome T
Focus
Dome T
Hour An End

Dome Temp. .....

Focus .....

Dome Temp. .....

Transparency Conditions .....

May 1 Changed to 25" Camera 12½ was Focus 12.66 Tilt 20.35 25 is F 15.45 T 23.15

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality

105

Set up the Cook VH up on the lawn - cleared Sky - Showed Uranus on 1st. try FL, mcl, cc

Date May 2-3 1964 Sat-Sun **Observer** Ro Ko **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27455	Focus Test 07E			I-25	IIIa-F	.008	+13.5			
	M UMA	$13^h 43.6$	+49° 49'	I-25	IIIa-F	.008	+13.5	00 [illegible]	00 [illegible]	
	"									
27456	δ OPH	$16^h 31.7$	-10° 22'	I-25	IIIa-F	.008	+13.5	02:025	02:[illegible]	3
								02:04	02:05	3
								02:06	02:08	3
27457	HD 184467	$19^h 29.5$	+58° 24'	I-25	IIIa-F	.008	+13.5	02:41	on [illegible]	4

Dome Temp. 54°

Focus 15.49 - .11 = 15.38

Dome Temp. 48°

Transparency Conditions

Who took the ARC-STRIKER?

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
					20/10	set 2 Disregard set #5.	
01h 20m W	+49°29	1	1.91	B3V	9-9	set #7 MK st normal counts #4 (2)	
					9-9	set #10 " ½ counts #7 (1)	
0 05m E							
00.55E	−10°29'	1	2.70	09.5V	7-9	set 2 " #4 (1)	
0 03m E							
00 57 E			2.70	09.5V	9-9	set 5 " #4 (2)	
00m			2.70	09.5V	7-9	set 8 " #4 (4)	
0m5m E	+58°29'	1	2.5	K5	6-6-6	set 5 St.VI. #7 (1)	
						slo OTB locus test 20/10	
						420 closed	
						12H (#1) loaded in NP1 ch. spotted once	

1907

Date MAY 3-4 Sun-Mon **Observer** FL, Ko - Hr. **Julian Day** .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27458	γ UMa	11h 48m.6	+54° 15′	I-25	IIaO-b	.008	+15°.5	20:44	20:52	1
	"			"	"	"	"	20:54	20:57	1
	"							20:59	21:01	1
	Focus OTB			"	"	"	"			1
27459	HD 109379	12 29.1	-22 51	"	"	"	"	21:24	22.11	2
27460	HD 122080sp	12 54.5	+26 18	"	"	.012	15.5	22:43		
	Focus Test OTB					"				

Dome Temp. 59°F

Focus 15.51 - .11 = 15.40

Dome Temp. 52°F
40°F

Transparency Conditions 2015 Haze over entire sky + cirrus. ~2-3 mag extinction. 108

2100 Haze gone - but light cirrus filaments.

FINDER LIGHT FIXED

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0.29E	+53 55	0	2.43	A.V	–	Set 0 MR-EW counts: 6 1367 1972 Sens 6	
0:24E		1			–	" 1 Taken because hexw was obscured by 3 "	
0:21E		1			18	" 3 store. 1½ "	
					20/16	Set 9 Done before dome clear.	
0:10W	-22 51.? (1000)	0	2.8	G4	6-6-6	Set 5 ½ [illegible] Courts 8 1580 Sens 6	
0:11W	+260 /	1	8:	A:	6-6-3	Set 5 RA8x8v [illegible] 1895 1921 Sens 8	
					15/12	at 23:20 RA [illegible] 0.08	
						↖ Set 9	
						3CH. [illegible]	

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1964

Intensity of light in spotter changed - 150 watt bulb- rather than 75 ! (after these plates taken)

Date MAY 4-5 / MON-TUES **Observer** Re Ck Ki Gn. Ko **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
V 27461	~~OTF~~									3
	HD 89363	10h 13.6	+18° 13'	1-25	IIAo B	.008	+19.5	20:42	23:15	3
~~27462~~	~~HD 39992~~ Secondary	~~15 35 6~~	~~+36 58~~	1-25	~~IIaO B~~	Long .008		00:[illegible]	00:44	4
								00:45	01:39	4
27462 2	HD 171391	18 29.5	-11 03	1-25	IIaO B	.008		01:48	02:54	1
V 27463 3	HD 164867	18 29.5	+58 24	1-25	IIaO B	.008	+19.5°	03:12	04:04	2
	Focus Test	BTB 1/3								

Dome Temp. 62°
Focus 15.46
Dome Temp. 56°

Transparency Conditions Hazy 20h

Sky condition during the whole night — turning perfectly clear to begin with, only to break up into cirrus patches & now, the sky is clear again after one had given up, to only have it over again etc etc driving the photographer mad.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
					~~20/16~~ set 2	OK left slide closed	
03h 30m W	+17° 54'	0	6.62	A0	6-6-6	set 5 KA 8x8 #7 {1936 1945.7	12 fine
00h 20E	~~+36° 46~~	0	5.1	B8n	6-6-6	set 2 ~~A0~~ ~~B8~~ #7 {1951 1966	12
0h 35m		0			6-6-6	set 5 Twice NORMAL counts #7 {1767 1993	12
01 04E	-11 01	1-0	5.2	G7	6-6-6	set 5 Std Vel. #7 {1995 2011	12 f
00 52E	+58 31	1	7.5	K5	6-6-6	set 2 Std Vel. #7 {2013 2024	12 fine
					20/16	set 8	OK

3PH in 03h loaded fridge

Done most very slowly when in v half fog.

Exp I [illegible] for 31 OT .EST

Date May 7-8/1964 Thurs-Fri Observer L Ab Ko MC Ko Julian Day 2438523.5

⊙ 47 25 53·0 3482.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27465 (44)	Focus Test		OTB				24°			
27466 (44)	HD. 103095	11 47.2	38 26	I·25	II A·B	.008		20 30	21 36	3
27468 (45)	" 127663	14 27.5	43 49	"	"	"		22 49	23 06	4
27469 (46)	HD 139832	15 35.6	+36° 58'	"	"	(1mm) .007		23 15	23 41	1
	(SCrB A)	"	"	"	"	"		23 45	23 49?	1

Dome Temp. 74°

Focus 15.53

Dome Temp.

Transparency Conditions

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
					20/16	SET 2	part of OTB missing!
0 31W	38 00	0-1	7.3	G5	6-6-6	Set 7 Standard Vel. Set 7 {20 9 6 / 5 3 1 2}	fine
0 35E	43 32	0-1	6.81	A2	6-6-6	" 5 KA 8X8 " 7 {2 1 3 / 2 1 3 7}	1 string
1 11E	36 47	0-1	5.1	B8n	9+9	Set 2 H$_\delta$ - spec. binary " 5 {2 1 3 6}	1 string
1 19E?	"	0-1	"	"	6+-	Set 7 H$_\delta$ " {2 1 3 7 / 2 1 4 0}	weak
						clouded up. Stopped Exposure.	
						closed up.	
						3 PH headed. 1:35 EST.	

SAT May 9-10 Cloudy, V. windy showed 180 visitors Unaware, Sun. Ca, Hw, Dm (Z.)

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Date MAY 10-11, Sun-Mon (1964) **Observer** F.I, Ab, Ko-Sm, Ko **Julian Day** 2438526.5 0 50 19 55.0 3 44 7 4

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27468	HD 109379	12 29.1	-22° 51'	I-25	IIaO-B	0.008	16	21:10	21:39	2
"	Focus Test	OTB								
27469	5 Com Ber A	15h 35.6m	+24° 58'	"	"	0.008 slit lengthened		21:54	22:39	4
"	"							22:47	23:07	4
27470	5 Com Ber B	"	"	"	"	"		23:10	00:06	1
335-2989	144, 253	16 02.5	-20° 20.9		7/6/33	28	750V	00[30]	a, b, sky	
" 2990	144, 585	16 05.1	-13° 58'		7/5/33	28	"	01[03]	a, b, sky	
" 2991	146, 233 185.0	16 13.7	-02° 17		7/4/33	28	750	01[35]	a, b, sky	
" 2992	149, 061	16 34.4	-02° 15.0		7/4/33	28	750	02[00]	a, b	
" 2993	153, 631	16 37.1	-13° 36.0		7/5/33	28	750	02[24]	a, b, sky	
" 2994	157, 089	17 19.4	+01° 25'		7/5/33	28	750	02[55]	a, b	
" 2995	170, 627	16 29.2	-18° 55.9		7/5/33	28	750	03[16]	a, b	
	Had some trouble with R.A. clamp.				Continued on next page					

Dome Temp. 51°F CO_2 in voltage 700v : 2340 Transparency Conditions Good.

Focus 15.52 - 0.11 = 15.41 Auroral arc in north. all 1st half.

Dome Temp. .... 00^00: good except for broad aurora in N stretching from NW into E, sometimes up to zenith

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0h 05m W	-23° 10′	0	2.8	~~G4~~	6-6-6	Set 5 Stand Vel. No fwd field since last star Sens. 6 {2158 2166	two strong
					20/16	Set 9	ok to visible
2h 01m E	+36° 46′	0	5.1	BBn	6-6-6	Set 2 Ab Bin. Sens 6 {2168 2179	11 strong
1h 33 E	"	0	"	"	9-9	Set 7 Use of motion twice blew. " " {2181 2188	½ fine
0h 31 E	"	0	6	B5	6-6-6	Set 5 Taken for comparison " {2155 2198	10 1 strong comp. star
						3 P.H. Loaded	
0° 22′ E	00° 1′ E		7.40	dK2	6"	00^50: aurora still low in NE in long arcs. Auroral glow to zenith ~ 1/3 as much as in bkd state	
0° 8′ W	00° 17′ W		6.31	G0	6"		
0° 27′ W	00° 24′ W		5.49	dG1	9"		
0° 41′ W	00° 49′ W		5.74	dK0	8"	02^15: sky mostly overcast now - faint	
0° 57′ W	00° 47′ W		7.12	G3	5"		
0° 41′ W	00° 50′ W		6.95	G05	6"		
0° 10′ E	00° 41′ W		6.88	dK0	6"		

TIME: 21h 04m. —

(Fletcher's Foil)

Low-wire bright (-4m) satellite pass across - flashing quite rapidly - blue white - disappeared before we could get to eyepiece - definitely not airplane -

Date Conf of May 10-11, 34 Observer KO Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	
105-2996	α Lyr F	18h 35.6	+38°45'		5/4/33	14	70°	0h25	a	
					Developer changed May 11			Lv.		

Done Tem
Focus ...
Done Tem
Hour Angle

Dome Temp. .... Transparency Conditions .....

Focus .....

Dome Temp. .....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
00^{29}W		1	0.03	AOV			

Wed - May 13 Both clocks correct within 2' Lv

Thu-Fri May 14/15 L MA, Cm,

Date ~~Wed May 13/14, 1914~~ **Observer** KD SMM SMM **Julian Day** 2438530.5

RM MC KD 54 11 36.4 3471.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
336-2997	HD 75,732 p'Conc	8^h 50.5	+28°28.1		7/6/[illegible]	28	700	20^{25}	0 6	
2998	99,492 83 Leo	11 24.9	+03°12.1			28	700	21^{00}	0 [illegible]	
27470	HD 107328	12 15.[illegible]	+03 53	I-25	IIA.oB	.008	+14°	21 58	23:06	2
336-2999	125, 124	14 16.1	-07°23'		7/5/[illegible]	28	700	23^{10}	[illegible]	
336-3000	126, 053	14 21.4	+01° 25'		7/5/23	28	700	23^{--}	[illegible]	
3001	131, 511	14 51.4	-19° 19'		7/4/23	28	700	00^{10}	[illegible]	
3002	144, 253	16 03.6	-20° 20'9		7/[illegible]/23	28	700	03^{40}	[illegible]	
3003	144, 579	16 01.7	+39° [illegible]		7/5/23	28	700	0^{--}	[illegible]	
3004	145, 675	16 09.3	+43°54'7		7/5/23	28	700	01^{--}	[illegible]	
3005	153, 621	16 59.x	-13°30.2							
3005	157, 089	17 19.4	-01° 29'		7/5/23	28	700	02^{14}	[illegible]	
3006	158, 014	17 22.5	-01° 02'							
3006	160, 346	17 37.5	+05° 34.6		7/5/23	28	700	02^{45}	[illegible]	
3007	170, 051	18 36.7	-21° 05'		7/5/23	28	700	03^{15}	a	
3008	172, 181 Vega	18 35.7	+38° 45'		7/4/23	14	700	$[illegible]^{--}$	a	

Dome Temp. 54° 20:00 CO_2 in
Focus 15.39 V = 700
Dome Temp.

Transparency Conditions 20°: very good
00:30 - Aurora [illegible]
[illegible] - stationary

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
03[illegible] W 03[illegible] W			5.93	dK0			
00[illegible] W, 01[illegible] W			7.60	dK5			
[illegible] W	[illegible] = 3"	0"	6.1	K1	6-6-6	set 5 Seeing & guiding demonstration for Dr Hall #9 22 31 23 71 (15)	
[illegible] W [illegible] W		5"	6.47	G0		23:00: v. good	
[illegible] W 00[illegible] W		7"	6.27	dG3			
[illegible] W, 00[illegible] W		6"	6.02	K1 V			
[illegible] W [illegible] W		5"	7.40	dK2			
[illegible] W 00[illegible] W		10"	6.67	dG8		01[illegible]: sky excellent! Suspect for aurora in N stretching light from W to E, aurora a little higher, brighter + stronger now than before	
00[illegible] W, 01[illegible] W		8"	6.66	dK1			
			7.42	G3			
[illegible] W 00[illegible] W		7"	6.95	G0 V		02[illegible]: sky excellent, aurora gone, [illegible] few clouds moving up sky low + [illegible] over [illegible]	
			5.98	G2 IV-V			
[illegible] W		8"	6.22	dK3			
00[illegible] W		8"	[illegible]	dG4			
[illegible] W		[illegible]	10.02	A0 V			

119 Saturday, 16th May 1964

80 visitors

Fe, Ti, Ca, Cr, Ko

Shroud of Venus + The moon on the 48" Cook Telescope

Date Sat-Sun MAY 16-17/64 **Observer** — Mt Ko **Julian Day** 2438582.5

50 19 55.0; 3+7+7

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27471	SGRA	$15^h\ 35^m.6$	$+36°58$	I-25	IIAoB	ref .008	+15	23:29	0:11	3
"	"	"	"	"	"	"	"	0:16	01:06	3
27472	HD 136202	$15^h\ 14.2$	$+02°07$	"	"	"	"	1:23	2:10	4
27473	HD 144467	$19^h\ 29.5$	$-58°24$	"	"	"	"	2:28	3:29	1

Dome Temp. 54°

Focus 15.40

Dome Temp. 50°

Transparency Conditions good

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0:00	+36°46'	0	5.1	B8M	6-6-6	set 2 Exposure meter doesn't work - #5	
00^{50}W	+36°46'	1-2	"	"	6-6-6	set 7 Focus test set 10 OTB	
0.25W	+01.55'	0	5.6	60	6-6-6	set 5 St. Velocity	
0:40E	+58°30'	1	7.5	K5	6-6-6	set 5 St. Velocity Focus Test Set 1 OTB	
						Closed up. 3 P.M. Loaded.	

Date Sat. Morn. May 17/18 1947 **Observer** Ko, Sm – Ky, Sh **Julian Day** 2438533.5

57 05 07.9 3466.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
337-3009	75, 73± pl'fmc	$08^h\ 50^m$	$+28°\ 21'$	7/4/33	28			20^{35}	a, b, ok?	
3010	114, 710 pl'fmc	-2 12.2	$+28°\ 03$		28			21^{05}		
3011	126, 198	12 49.4	$-24°\ 18'$	7/5/33	28		700	21^{--}	a, b, ok?	
3012	128, 233	14 12.4	$-05°\ 47'$	7/5/33	28		[illegible]	12^{55}	a, b, ok?	
3013	134, 053	14 21.-	$+01°\ 30'$	7/5/33	28		750	23^{00}	a, b, ok?	
3014	144, 385	$16^h\ 05.1$	$-13°\ 58'$	7/5/33	28		700	00^{00}	a, b, ok?	
3015	146, 453 [illegible]	16 13.7	$-22°\ 17'$	7/5/33	28		700	00^{10}	a, b	
3016	149, 361	16 39.5	$-02°\ 15'$	7/4/33	28		700	$[illegible]^{12}$	a, b, c	
3017	151, 791	16 51.2	$+00°\ 03'$	7/4/33	28		750	01^{11}	a, b, ok?	
3018	153, 631	16 57.1	$-13°\ 30'$	7/1/33	28		700	01^{37}	a, b, c	
3019	157, 430	17 24.7	$+17°\ 21'$	7/4/33	28		[illegible]	02^{21}	a, b, ok?	
3020	164, 502	18 01.9	$+36°\ 19'$	7/3/33	28		700	02^{57}	a, b, ok?	
3021	173, 167 Vega	18 35.6	$+38°\ 45'$	5/31/33	14		700	00^{07}	a	

Dome Temp. ..... CO_2 in. Voltage 700v : 17^{45} EST Transparency Conditions 20^{00} : 1 hr to a isolated cumulus clouds only

Focus .....

Dome Temp. 60° New Moon

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
17^{h} 3^{28}W			5.93	dxo		E cloudy, W very good except for new moon	
			4.21	GOF		21^{00} : 5 hrs to a isolated cumulus clouds only	
00^{10}W 00^{19}W		5"	6.45	dG5		call Jerry. Lost 1 hr.	
00^{22}W 00^{16}W		5"	6.35	dxo		21^{00} : cloudy. Use digital tube temp.	
00^{17}W 00^{34}W		5"	6.07	dG3		23:00 trouble with needle. Floor [illegible]	
00^{30}E 00^{21}E		5"	6.31	G0		23^{00} sky very good	
00^{11}E 00^{12}E		7"	5.49	dG1			
00^{09}E 00^{00} 00^{11}W		7"	5.74	dxo			
00^{13}W 00^{3}W		7"	6.64	GL^{D}			
00^{23}W 00^{42}W		5"	7.12	G3			
00^{40}W 00^{52}W		5"	6.43	F0		02^{10} sky very good everywhere	
00^{32}W 00^{43}W		5"	7.0	G8F			
00^{32}W		12"	6.03	P0V			

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A MRS IAES PHONED & PHONED & PHONED

KO
Ck

Date Mon/Tues 18/19 May 1964 Observer McL Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I

Dome Te
Focus
Dome Te
Hour Ang
End

Dome Temp. .....

Focus 15.50

Dome Temp. .....

Transparency Conditions Hazy

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
						Clouded over before we could get started.	

125

Date Tues.-Wed., 19/20 May 1964 Observer AD AB DJ - Julian Day 2438535.5

59·00 35·3 3462.8

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H	Hour Angle End
27474	HD 139892	15h35.6	+36°58'	I-25	IIaOb	5S long .608	+24.5c	21:00	21:44	2	3:20
	HD 139892	15h35.6	+36°58'	I-25	IIaOb	.008	+24.5°	21:46	22:20	2	3:45
	Focus test		0	TB						2	

Dome Temp. 67°F

Focus 15.54

Dome Temp. ____

Transparency Conditions Clear Windy

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2 02:20E	+36°45	O(+1)	5.1	B8n	6-6-6	set 1 Ab. S.B. S G.B.A sens 5 {2565 2575}10	Temp
2 01:45E	+36°45		5.1	B8n	6-12	set 5 " sens 5 {2576 2582}6	Clearing
2					20/17	set 8 7½ Stopped due to clouds	Ok

Clouds at 22:20

closed up 00:00

Extra set of comp. lines

obscure top ½ of focus test

Lv

Clocks correct within 2s, both frames

Date Wed-Thur 20-21, 1964 **Observer** Cn, Ck K2, Sm, — K2, Sm **Julian Day** 2438536.5

59 57 18.1 3461.1

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.
338-3021	HD 114,710 p'Com	13^h 10.2	+22° 02'		7/2 IIa	28	750	20^{30}	a b c	
3022	75,732 p'Com	08^h 50.5	+28° 28.1		7/4 IIIa	28	700	21^{05}	a	
								~~54~~		
27475	HD 139892	$15^h 35^m 6$	+36° 38'	I 25	IIIa Ob	Sat, long 0.008	15° C	21:54	22:36	3
	Focus Test	OTF: I 7 A								3
	HD 139892	$15^h 35^m 6$	+36° 38'	I 25	IIIa Ob	Sat long 0.008	15° C	22:50	23:54	3
338-3023	152,391	16 [illegible]	[illegible]	[illegible]	28		750	00^{25}	[illegible]	
3024	157,047	7 20.9	-02° 21'	[illegible]	28		700	00^{52}	a [illegible]	
3025	161,797 p'Her	17 45.0	+27° 41'	6/4 IIIa	28		700	01^{18}	a	
3026	164,922	18 00.9	+26° 19'	7/4 IIIa	28		750	01^{31}	a Long	
3027	165,401	18 04.0	+04° 43'	7/4 IIIa	28		750	02^{00}	[illegible]	
3028	170,657	18 39.2	-13° 55'	7/5 IIIa	28		700	02^{18}	a X [illegible]	

Dome Temp. 48° Voltage 700 20^20, 00^00 Transparency Conditions 20^15 : excellent everywhere except low in N where
Focus 15.51 - .11 = 15.40 CO_2 in 22:15 l cloud nearby stratus are drawing up
Dome Temp. Moon up thick cloud moving in from N.W.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
3°E		16"	428	GOIV		very poor seeing!	
			5.93	dKO		21^13 : sky completely covered with cirri very quickly - quit (sky was good for [illegible] 3021)	
01 24E	36°45'	0-	5.1	B8n	6-6-6 20/16	Set 2, A6, Sp B. Sens 5 2631 2641 wt 5	(10) strong calc. violet
						22:30 CLOUDS	
00 07E	36°45'	0-	5.1	B8n	6-6-6	Set 8 A6 Sp B Sens 5 2642 2657 4 Pk Loaded.	(5) V. dirty
						00^30 ; sky has cleared off by now - only slight haze - steady as you go - like	
00^-E 00^-E		7"	6.64	G6V			
00^45E 00^35E		8"	6.28	G5			
00^41E		10"	5.42	G5IV			
00^44E 00^44E		5"	7.0	G8V			
00^11E		4"	6.79	G3V		01^40 . sky good except for a few CN clouds in drawing up to 15° above horiz in W to NW	
00^5E		5"	6.11	dKO		02^10 [illegible]	

Date Fr/Sat May 22/23 '64 **Observer** Vogt-Hr **Julian Day** 2438588.5

61 53 38.9 34 [illegible]

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
339-3029	W Vir	11 33	+8 41		5/6/33	28		2035		
339-3030	36 Com	12 54	+17 57		5/6/33	28		2055		
339-3031	ν Boo	13 44	+16 18		5/5/33	26		2117		
339-3032	BS 5299	1403	+4420		5/6/33	28		2135	4 x	
339-3033	83 UMa	13 37	+55 11		5/6/33	28		2205	2 x	
339-3034	17 L^4 Sel	1531	+1526		6/5/33	28		2245	2 + 1 Sky	
339-3035	10 Her	1607	+2345		6/4/33	28		2337		
				I-25		000	+24.0			

Dome Temp. .....

Focus 15:53

Dome Temp. .....

CO_2 in 21:5
V = 300

Transparency Conditions ..... Cirrus!
NOT PTm

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0h50m W		8"	5.47	M4 III		Experimental!	
		7	4.96	M1 III		"	
0040E		6	4.78	K5 III		"	
0035E, 45		5	5.44	M4 III		"	
0015W		6	4.75	M7 III		"	
		7	6.5	M5 II-III		" Composite?!	
0045E		6	5.96	M4 III			
						0130 Sky Very Poor.	

Dome Rotation too Slow!

Please Get new Red lamp and repair 2nd Flash light on Monday!

131

~180 visitors Showed Uranus & Moon
Fl, Hw, Cc.

Date May 23-24/64 Sat-Sun **Observer** Re Ko **Julian Day** 2438539.5

62 51 17.2 2436.?

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P	Hour Angle End
27476	H.D. 139892	15h 35.6	36° 58'	I-25	IIA₀B	Long .008	+26.5	23:37	00:23	1	00h 35m W
	HD 139892	15h 35m.6	36° 58'	I-25	IIA₀B	Long .008	+26.5	00:23	01:55	1	02h 06m W
Focus	Test	07 B								1	
27477	HD171391	18h 29m.5	-11° 03'	I25	IIAOB	.012	+26.5	02:05	03:23	2	50° 40m

Dome Temp. 72° (23:30)
Focus 15.57
Dome Temp.

Transparency Conditions Poor
Bright & ; me hazy

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
00 35 W	36° 46'	0(-1)	5.1	B8m	6-6	set 2 Ab 2X sens 5 {2705 2715	(10)
02 06 W	36° 46'	1	5.1	B8m	6-6-	set 5 Ab 3X sens 5 {2716 2730	(5) strong slightly to violet
					20/17	set 9	
00h40mW	-11° 00'	.00	5.1	G7	6-6	std. Vol. St. set 5 sens {2732 2740	(8)

Close up 3:30
2 PH loaded in fuzzy

133

Date MON-TUES MAY 25-26/64 Observer MR KO HG — McL HV Julian Day 2438 34.5 @ 65 46 29.6

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27478 →	HD 131861	14h 50.9	+45° 43	I-25	IIaO	.016	+18°C	21:27	0041	3
	SEEING TEST TRACINGS							0050	0146	
↳	FOCUS TEST			OTB		.008				

Dome Temp. 63°
Focus 15.44
Dome Temp. 56

Transparency Conditions quite a few clouds

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0146W	+45° 28'	0	7.64	F3	3-3-3	set 3 KAFS June 34 21:30 – Thin cirrus seno 9 {2787 2907	fine
					29/16	" 9	diff. focus

Swept Spot. Set until
sweep set time lost and
10 exposures.
Clouds after midnight

135

Date Wed-Thurs May 27-28/64 Observer HW Sm KO Fl vdD Julian Day 2438543.5

66 41 37.2 3452.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
340-3036	75.732	8h 50.4m	+28°28'		7/4/33	2	70	20:40	a	
3037	99, +9 23	11 24 9	+03° 12' 5		7/4/33	2	70	21 05	g, b, c, sky	
					6/5/33	2	70	21 43	g, b	
					7/4/33	2	70	22 13	g, b, sky	
27479	139892 focus test	15 35.6	+36°58	I-25	IIa0-b	.008	16	2245	2330	4
340-3040	70 Vir	13 26.7	+13 54		6/4/33	2		2340	a b sky	
340-3041	44i Boo	15 02.6	+47 48		6/4/33	2		00 00	a b	
340-3042	γ CrB	15 21 7	+36 25		6/4/33	2		00 25	a b	
340-3043	λ Ser	15 44.7	+7°28'		6/4/33	2		00 45	(a) sky (c) sky	
340-3044	Q CrB	15 59.8	+33 25		6/5/33	2		01 20	a b sky	
340-3045	ζ Her	16 40.3	+31 40		6/5/33	2		01 46	a b	
340-3046	72 Her	17 19 3	+32 31		6/5/33	2		02 10	a b sky	
340-3047	26 Dra	17 34 6	+61 54		6/5/33	2		02 36	a b sky	
340-3048	2 Lyr	18 35 6	+38 45		6/4/33	2		03 02		

22:20 V.- 700 CO_2 in

Dome Temp. 54

Focus 15.41

Dome Temp. .....

Transparency Conditions ..... very good

0130 " "

Full Moon

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
04 10 W		5	5.93	dKO			
21 54 W 02 04 W 02 14 W		8"	6.50	dKO		81 leo just stopping out	
0 4 W 00 52 W		3				pier stopping periodically, again!	
50 31 W 00 91 W							
4 0h03m E	+36°45'	0	5,1	B8n	G	set 2 Sp. binary seeing 5 [illegible] 2936	Strong comp wk OK
						set 8	
0 22 35 W 0 22 5 W		10"	4.98		G5V		
0110+0120 W		8"	5.26		dG1		
0110+0120 W)		8"	5.63		G1V		
0110+0120 W 130		7"	4.43		G0V		
0115+0117 W)			5.40		G2V		
↓			2.82		G0IV + K0V		
0100+0110 W		4"	5.39		G2V		
0110+0120 W		6"	5.31		G0V		
0140 W		—	0.0		A0V	ST. Standard	

replacement added

Date Fr/Sat May 29/30 **Observer** vaB - RM **Julian Day** 2438545.5

⊙ 63 36 40.5 3450.2

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
341–3043	BCom	13 10.2	+17 803		6/4/33	28		20 56		
27480	HD 131861	14 50.9	+45°43	25"	IIaO	.008	13.5°	21"55"	00.30	PH1
27481	HD 139892	15 35.6	36° 58'	25"	IIaob	.008	13.8°C	00:42	01.01	2
27482	HD 136849	15 17.8	+33° 17'	25'	IIaob	.008	18.8°	01 :10	01:44	3
27483	HD 155711	17 02.2	-52 32	25"	"	"	13.8°C	01 53	02.56	4
27484	HD 176310	18 59.6	-38 07	25'	"	"	13.8°C	02:45	03:13	1
27485	HD 186547	19 41.0	-12 03	25"	"	"	13.8°	03:18	04:00	2
	Focus Test									

Dome Temp. .....
Focus 15.2 38
Dome Temp. 46° F

725V
CO_2 in } 1930

Transparency Conditions ..... Some cloud in West
a few thin clouds overhead 20:50

12:15 clouds drifting in from south
01:15 clouds getting thicker

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.		REMARKS	Quality
		10"	4.28	500		Clouds! KAFS SB	Tracking discovered non-mech. may not be very good	
W 11.50	+45°28'	0	7.64	F3	6+6+6		30→42 (11) due to particle action rods	Fine
W 1h.36	36°46'	0	51	B8	6+6+6	Set 5	Seq 6 Spec Binary (5) 2744 2943	Strong
W 2h37	33°05?	0	5.34	B9	6+6+6	Set 5	Seq 7 B8 B9 (12) 2750 2962 2963	Strong
W 1h10	-52°28'	00	6.11	B9	6+6+	Set 5	Seq 7 B8 B9 (12) 2976	Fine
W 025	-32°12'	00	5.70	B8	6+6+6	Set 5	Seq 7 B8 B9 (12) 2977 2989	Strong
W 031	-13 14	000	6.07	B8	6+6+6	Set 5	Seq 7 B8 B9 (12) 2990 3002	Fine
					20/6.	Set 9.		OK

Dirt on slit!
(Shows on all plates)

Please leave 'instructions for observers' in observing box!
PW

By 150 visitors showed M3 seeing + focus poor! Hd, Cn, Mt, Dn

Date Sat.-Sun. May 30-31/64 Observer Cn, Kd Julian Day 2438546.5

69 34 10.7 3449.4

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H.
27456	139892	15 35.6	+36°58'	I-25	IIa-O	variable .008	+15	23:07	23:29	3
	139892	15h 35 6	+36°58	I-25	IIa-O	.008	+15	23:30	23:50	3
	Focus	Test	O'T							
27487	H.D. 152031	16h 45.9	+41°49	I-25	IIa-O	.008	+15	23:59	01:24	4
	Focus	Test	O'T	B						

Dome Temp. .....
Focus 15.40
Dome Temp. 54°

23L
Transparency Conditions few light clouds drifting by 140
01L cloud over entire sky.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
00°08 W	36°46'	2-1	5.1	B8m	6-6-6	set 2 Ab Spec Binary seeing 5 {3024 3034	(10) Strong
00 28 W	36°46'	2-1	5.1	B8m	6-6-6 20/16	set 5 Ab Spec Binary seeing 5 {3034 3044 (10) — no good!!	11 guid
00 52 W	41°44'	1-0	7.56	A3	6-6-6 20/16	set 5 KA 8x8 seeing 8 {3045 3062 (12)	wk OK

01:30 closed up completely cloudy

3 PH loaded in Fridge

Date 10/11 June 12 **Observer** vdB Re **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
341-3049	β Com	13h 10m.2	+28°03'		6/4 /33	28		2100	2×	
341-3050	10 CVn	12h 43m.3	+39°28'		6/5 133	28		2123	2×	
341-3051	83 Leo A	11h 24m.9	+03°12'		6/6 133	28		2148	2×+5m	
341-3052	HD 114174	13h 07m.0	+05°25'		6/6 133	28		2217	2×+5m	
341-3053	59 Vir	13h 15m.0	+09°37'		6/5 133	28		2243	2×+5m	
341-3054	HD 111395	12h 47m.1	+25°02'		6/6 133	28		2310	2×+5m	
341-3055	31 Com	12h 50m.0	+27°44'		6/5 133	28		2343	2×	
341-3056	HD 115043	13h 12m.1	+56°53'		6/6 133	28		0008	2×+5m	
341-3057	HD 131511	14h 51m.4	+19°19'	a	6/5 133	28		0038	2×+5m	
				b	6/6 133					
341-3058	ξ Boo A	14h 49m.6	+19°16'		6/4 133	28		0115	a	
341-3059	γ Ser	15h 54m.7	+15°48'		6/4 133	28		0128	ab	
341-3060	HD 170657	18h 29m.2	−18°56'		7/5 133	28		0158	ab+5m	
341-3061	χ Her	15h 51m.5	+42°33'		6/4 133	28		0226	ab	
341-3062	99 Her	18h 05m.7	+30 33		6/4 133	28		0247	ab	
341-3063	α Lyr	18 35 6	+38 45		4/4 133	28		0314		

Dome Temp. .....
Focus .....
Dome Temp. .....

CO_2 1→ V=750 } 20:30 EST. Transparency Conditions ..... Fine, a few clouds low in W arctic air 0000 very fine dark sky

½ Dup 01200

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0127+0127W		8"	4.28	G0V			
0108+0118W		7	5.94	G0V			
0250+0300W		7	6.50	dK0			
0137+0147W		7	6.60	G5V			
0158+0208W		5"	5.22	G0V			
0250+0300W		8"	6.31	—			
0320+0330W		10"	4.93	-			
0325+0335W		8"	6.74	G1V		obs are of brightest component of wide double.	
0215+0225W +0235W		7"	6.02	K1V			
0255W		8"	4.6	dG5		obs. A+B Sep ~7" A 2-3 mags. brt. B.	
0205+0215W		10"	3.9	dF5			
0005E+0005W		8"	6.88	dK0			
0300+0310W		7"	4.6	dF7			
0110+0120W		7"	5.2	dF5			
0112W			0.0	A0V		ext. ST.	

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Date Thu/Fri June 4/5, 1964 **Observer** L Sm DL — DHK Sm **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
				L	6.615/33		6.700 V			
342 - 3064	HD 111,812 3.6m	12 50.0	+27°44'		6/4/33	28	0.750V	20 40	1 b,	
342 - 3065	HD 115,617 6.4m	13 16.5	-18° 06'		7/5/33	28	700V	21 06	0, b	
342 - 3067	HD 120,690	13 49.4	-24°13'		7/5/33	28	700V	21 38	2, sky	
342 - 3068	HD 124,553	14 12.4	-05°47'		7/4/33	28	750V	21 46	0, 1	
342 - 3069	HD 125,184	14 16.1	-07°23'		7/4/33	28	750	22 15	0, ½ b, sky	
342 - 3070	HD 117,176 7.0m	13 26.7	+13° 54'		6/5/33	28	750	22 38	2, b	
342 - 3071	HD 122,742	14 01 8	+10° 58'		6/6/33	28	750	23 06	0, X, sky	
342 - 3072	HD 144,253	16 03.6	-20° 21'		7/4/33	28	750	23 37	0, 1, sky	
342 - 3073	HD 146,233 12.5m	16 13.7	-08° 17'		6/6/33	28	700	00 09	0, 1, sky	
342 - 3074	HD 141,279	16 01.7	+29° 15'		6/6/33	28	750	00 38	2, b, sky	
342 - 3075	HD 157,089	17 19.4	+01° 29'		6/6/33	28	750	01 05	2, 1, sky	
342 - 3076	HD 145,675	16 09.3	+43° 54½'		6/6/33	28	750	01 36	0, 1, sky	
342 - 3077	HD 152,633	17 24.7	+67° 21'		6/6/33	28	750	02 06	0, sky	
342 - 3078	HD 160,346	17 52.5	+103° 34'		6/6/33	28	750	02 36	2, b, c, sky	
342 - 3079	α Lyrae	18 32.6	+38° 45'		4.5/33	28	700	03 09	0	

Dome Temp. ..... voltage 700V 19:30 EST Transparency Conditions ..... excellent (20:20 EST) everyone!

Focus ..... CO_2 in;

Dome Temp. .....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
00[33] W; 00[45] W		8"	493	GO III		very bad	
00[5] W, 00[44] W		5"	4.75	G6 V		very; much improved	
00[36] W		3"	6.45	dG6			
00[32] W, 00[29] W		3"	6.35	[illegible]			
00[5] W		3"	6.47	G0		bad to stop timing b/c too slow to N 20s	
01[58] W, 02[28] W		6"	4.98	G5 V		22[50]: very good evening so far	
1[3] W		5"	6.36	G6 V			
00[8] W, 00[38] W		3"	7.40	dK2			
00[2] 00[49] W		4"	5.49	dG1		00[10] ⊕ strong thin sky to begin, still not	
[illegible] W, 01[39] W		5"	6.67	dG2		good; winds picked up during exposure	
[illegible] W, 0[illegible] W		4"	6.95	G0 V		telescope for 3 hrs to stop tracking for plate	
[illegible] W, 00[26] W		2"	6.66	dK1		not a good night	
01[41] W		4"	6.41	K0		01[illegible]: wind very good sky	
01[illegible] W		4"	6.22	dK3		[illegible] E 00[illegible] perhaps marginal again	
01[illegible] W		10"	6.20	K0 V		after about 1 hour, wind [illegible]	
						[illegible]	

145

Date Fr/Sat June 5/6 '64 **Observer** WB – HV **Julian Day** 2438552.5

75 18 55.8 3445.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
~~343-3060~~	~~Blank~~	~~1310~~	~~1705~~		~~IIa 0~~	~~28~~	~~10~~			
27488	HD 125709	14161	+17701		IIa 06	.016	16°½	21:30	0008	
	Focus Test	O.T.B								

Dome Tem
Focus
Dome Tem
Hour Angle End
(2 30

Dome Temp. V=725 } 2000 EST
Focus 15.41 CO Lin }
Dome Temp.

Transparency Conditions
2100 partly cloudy Cirri
2300 1st absorpt. cirri
0030 CLOUDS

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
		~~4 IP 5 OT~~				cirri	
0230W	+26° 44'	0+	7.46	A2	3+3+3 10/8	KA 8×8 3062 - 3074 (9 counts) #7 1 wk Set 9 2 PHL - 1-1. Streak of light on plate does not affect spectrum.	

replace light in counter of exposure meter

147 [illegible]

Date Sept/Oct June 17, 1964 **Observer** RM **Julian Day** 2438553.5

76 16 21.0 3444.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27489	HD 136849	15-17.8	+33° 17'	I 25°	IIaob	.008	19.0°C	00:51	01:42	2
27490	HD 187691	19 46.2	+10° 10'	25°	IIaob	.008	19.0°C	01:49	02:41	3
27491	HD 193964	20 18.0	+61-56	"	"	"	19.0°C	02:59	03:37	4
	Focus Test									

Dome Temp. 60°

Focus 15.45

Dome Temp. ....

Transparency Conditions Very Hazy. Thin clouds all night.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
W 3h 7	-33° 03'	0	5.34	B9	6-6-6	Set 5 Seq 8 Wt d+e B8 B9. 30 3094 3124	l strong
24m E	+10° 21'	1	5.8	F8	6-6-6	Set 5 Seq 8 Std Var Star 30 3126 3156	fine
W 4m	+62° 08'	1	5.59	B9	6-6-6	Set 5 Seq 8 Wt d+e B8 B9. (17) 3159 3176	fine
					20/16	Set 9	OK
						last plate clouded out 03:35	
						3 PH loaded.	

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Date Flo/Tu June 8/9 1924 **Observer** vcB HB RM **Julian Day** 2438 554.5

77 13 45.5 ; 3443.9

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
343-3080	BCom	1310.2	+2803	a	6/4/33	28	21:13	ab		
343-3081	111812	1250.0	+2744	b	6/4/24 6/5/24	28	21:36	ab		
343-3082	131156	1449.8	+1916		6/5/24	28	22:00	abc + sky		
343-3083	142860	1554.7	+1548		6/4/24	28	2233	ab		
343-3084	142373	1551.5	+4233		6/5/24	28	1255	ab		
343-3085	144573	1603.7	+3915		7/5/33	28	2317	ab		
27492	S. GB A	15 35.6	+36 58	I-25'	IIaO6	.008	21.0	23:55'	01:13	1
27493	H.D. 190655 Focus Test	20 00.8	-15° 13'	"	"	"	21.0°C	01:23	03:31	2

Refrigerator Added June 10

Dome Temp. .....
Focus 1598 (Shoulder 88)
Dome Temp. .....

CO_2 in 20:30
V=750

Transparency Conditions .....
Typical tropical A.V.,
marginally O.K
2300 Hazy 2330 Ci. ov Altocum

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0100 +0110 W		8"	4.78		G0V		
0145 +0155 W		8"	4.93		G0III		
0010 +0020 +0030 W		7"	4.6		G8V	A+B	
0075 +0015 G		7"	3.9		F6V		
0000 +0010 W		5"	4.6		dF7		
0010 +0020 W		5"	6.67		dG8	clouded out	
21 27 W	+36°45'	0	5.1	B8m	6+6+6	Sens 5 SB Abyss Var 3206 5 3211 3212	l obs
0 21m W	+15°25'	0	8.0	gM	9+9-9	Set 5 Sens? Spec Binary. (13) 3225.	V wk
					20/16	Set 9. Scratched: Wire, handle broke during development	C to red

1 PH loaded.

Fog all night
getting very thick towards
dawn

Date Tu/Wed June 9/10, 1964 Observer AG DG Julian Day 2438555.5

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27494	HD 139892	15h 35.6	+36° 58'	I-25	IIaO6.	set .008	+26.1C.	21h 02	21h 28	3
	"	"	"	"	"	"	"	21h 32	21 52.	"
27495	HD 136202	15h 14.2	+02° 09	"	"	"	"	22h 16	22 35	4

Foc. Test on 27494: OK
Set 9?

Dome Temp. + 79 °F

Focus 15.56

Dome Temp.

Transparency Conditions Hazy and windy (from south west)

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1h 14 E	+36°47′	2-1	5.1	B8n.	6-6-6	set 2 S.B.-Abhyankar 5 GBA sens. 5 {3248 3259}	strong
0h 49 E	"	2	"	"	6-6-6	set 5 " " sens. 5 {3261 3271}	strong
0h 15 W	+1°53′	1-0	56	60	6—	set 2 Standard Vd. sens. 5 {3274 3276}	Good
						Stopped on account of clouds	
						One strap of the secondary mirror cover is broken.	
						2 Plate holders loaded	

Date Wed 17th Jan 2 (N) 1924 **Observer** [illegible] **Julian Day** [illegible]

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
2442 - 3086	116, 283 SPVar	13 12.0	+09° 37'		1/5/24	28	75D	21 25		
2443 - 3087	25, 84	14 16.1	−07° 23'		7/7/24	28	75D	21 25		
2444 - 3088	47, 561	11 11.8	+20° 26'		7/5/24	28	700	22 05		
2445 - 3089	115, 043	12 12.1	+15° 53'		7/1-24	28	75D	22 40		
2446 - 3090	114, 114	12 07.2	+05° 25'		7/10/24	28	75D	23 20		
2447 - 3091	172, 742	14 01.2	+10° 58'		7/-/24	28	75D	23 50		
2448 - 3092	149, 661	16 [illegible]	−02° 15'		[illegible]	28	73-	00 10		
2449 - 3093	153, -31	16 39.1	−17° 20'		7/10/24	28	700	00 35		
2450 - 3094	152, [illegible]	17 22.9	−02° 10' [illegible]		7/-/24	28	75D	01 00		
2451 - 3095	130, 101	15 11.1	+13° 25'		7/12/24	28	75D	01 45		
2452 - 3096	[illegible]	8 23.1	−1° [illegible]		7/[illegible]/24	28	75D	02 25		
2453 - 3097	105, 67	12 08.0	+40° [illegible]		7/14/24	28	75D	03 05		

Dome Temp. ..... CO_2: 16[15]; 20[20] EST, 22[15]

Focus ..... voltage on 700, 16[15]

Dome Temp. .....

Transparency Conditions ..... 20[20]: clear & good
polar Air AOK

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
21[05] W, 01[16] W		8"	.22	GUS			
03[30] W, 05[37] W		6"	6.47	GO			
4[09] W, 29[1] W		6"?	6.92	GTV	22[14]	difficulty in steering telescope; strong variable	
1[1] W, 02[51] W		6"	.74	GE			
05[1] W, 25[1] W		9"	6.23	GSV		25[25]: sky clear everywhere	
22[59] W		8"	6.76	GBE		23[05]: very good conditions, low grade haze	
00[46] W, 05[57] W		7"	5.78	NNO		+ noise in N winds at times; seeing from the East	
00[1] W, 00[59] W		6"	7.2	GO			
02[30] W		5"	6.27	GS			
02[24] W		7"	6.62	GO			
20[22] W - 00[42] W		7"	.27	NNO		00[40]: sky good everywhere	
3[37] W, 00[1] W		5"	6.66	NKI		[illegible]	

N

155 First half: Fe, Mt, CC, showed S Cor. Bor. and M3

Date June 13/14 (Sat-Sun) **Observer** – Mt **Julian Day** 2438568.5

82 57 57.3 3439.0

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27496	(HHNS 355) HD 13.861	14h 50m.9	+45° 43'	I-25	IIa-b	set .008	24.5C	0h 05m	2h 10m	1
27497	HD 167581	18h 46.2	+10 10	"	"	.008	"	2h 28m	2h 56	2
27498	HD 203638	21h 18.4	-21 16	"	"	"	"	3h 08	3h 35	3

Dome Temp. 67°

Focus 15.54

Dome Temp.

Transparency Conditions Some light cloud

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
4m 30s W	+45° 28'	0	7.64	F3	6-6	(counting slowly; had to cut it off) set 5 Sp. Binary (KHFS) sens 8 {3285 3274	Good
0 20s W	+10 19	0-1	5.8	F8	6-6-6	set 5 St. Vel. sens 6 {3296 3301	Strong
0 30s E	-20 59	0	5.5	K2	6-6-6	set 5 St. Vel. sens 5 {3303 3301	✓ wk ?
						Focus Test set 9 OTB	OK
						2 PH loaded	

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Date Sun / Mon, June 14-15 Observer Mt Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
	HINS 355									
27499	HD 131861	14h 50.9m	+45° 43'	I 25	IIaO	ret 100s	23° C	21h 10m	21:30	4

Developer vol. low, sludgy in 1 bottle.
Filtered; 15 cc replen, 15 cc water added
1 bottle changed.

Dome Temp. 68°

Transparency Conditions Some cloud

Focus 15.51

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
—	-45° 27'	0	7.6	F3	6-12	set 5 Sp. Sim sens 8 {3310	No spectrum visible
						Clouded over Closed up 2:30 1 PH loaded (didn't bother with focus test)	

159 Sat Nite June 20 160 visitors showed Moon, [illegible] Cr, M Cl, Dm.

Date Fr/Sat June 19/20 **Observer** vdB **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H

Sat./Sun June 20-21/64

Spent all 2nd half re-collimating Primary Mirror
Was out 10m in Dec.
Correction now is approx -2m.

Hv

Dome Temp. .....

Focus .....

Dome Temp. .....

Transparency Conditions .....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
						Primary Aluminized, (today)	
						Secondary not yet	
						Minor dripping wet did not observe	

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Date June 22/64 Observer Ck, Hd, MR — Hv Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27499	HNS 355 HD 131861	14h 50m9	+45° 43'	I-25	Tri-X aob	2mm 008 reset 006	26°C	20:59	23:57	1
	Focus Test	OTB	"	"	"	008				

Developer volume 700 cc
Added 200 cc water,
switched to curve (5)

new developer
June 24

Dome Temp. 73°F
Focus 15.56
Dome Temp.

Transparency Conditions Hazy - hazy around moon - thickening

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2h53m W	+45° 27′	1	7.64	F3	5-4-5	set 5 Sp Binary Reset slit to 0.012 3867 sens 8 3893	
	Set 9				20/15	PH #2 (in North Pen) - loaded & spotted	
						IN fridge	
						00h30 at least 3 more hrs.	
						Sky very POOR!!!	
						LOADED IN CORRECTLY	

63 NOTE: PH #2 Loaded incorrectly. (contained) Cu.

Date Thurs June 25/26/63 Observer L - Hb - Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	Pl.	Hour Ang. End
27500	HD. 131861	14 50.9	45 43	I-2	IIaOb	.008	22°	22 15	00.23	1	7304

Dome Temp. +67°F

Focus 15.50

Dome Temp. .....

Transparency Conditions 9tenths

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
3 30W	45°25′	0-1	964	F3	6-6-6	K.A.F.S. Clouds from 23.00 to 7 {3912 3921 Std gone 4 P.H.s loaded in Frig. No Focus Test	Good

Date Fri-Sat, June 26/27/63 Observer Hb Mt - mcl Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.
27501	HD 131861	14h 50.9m	+45° 43′	I-25	IIaob	.008	27°	21:10	22:55	1
27502	HD 165814	18 02.7	-25 29	"	"	"	"	23:10	01:02	2
27503	HD 187691	19 46.2	+10° 10′	"	"	"	"	01:13	01 23	3
27504	HD 223311	23 43 4	-6° 56′	"	"	"	"	01 41	03:45	4

Dome Temp. 78°

Focus 1.558

Dome Temp. 69°

Transparency Conditions Some cloud

00:00 – 00:15 Cloud covering star.

01:00 – Hazy

02:15 – more cloudy

0300 – about 50% cloudy

0330 – clear

Time	Pl.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS		Quality
5	1	2h 05m W	+45° 27′	1+	7.64	F3	6-6-	set 5 (sp. bin, KA FS)	seno 7 { 3929 3937	Wk, amp. wk
2	2	1h 00m W	−25° 28′	0−	6.7	B8	6-6-6	set 5 B8-B8 pgm	seno 6 { 3938 3942	Good
3	3	0h 21m E	+10° 19′	1	5.8	F8	6-6 6	set 5 St Pel	seno 6 { 3944 3948	Strong
4	4	1h 57m E	−6° 35′	0+	6.3	gK4	6-6	set 5 " "	seno 6 { 3950 3953½	good
						Focus Test				Col. w V

4 P.H. loaded in frig.

167 150 visitors; showed multiple system & Her 103 and M 13

Date Sat-Sun, June 27-28, 1964 **Observer** RM. **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
✓27505	HD 171461	18 29.9	+52° 01'	25"	IIaob	.008	24.2°C	23:20	24:34	1
27506	HD 190658	20.0a8	+15° 13'	25"	IIaob	.008"	23.5°C	23:48	01 34	2
27507	HD 166621	18 06.4	+18° 28'	"	"	"	26°C	01:44	02:58	3
✓27508	HD 193964	20 18.0	+61° 56'	"	"	"	27°C	03:14	03:20	4
Focus test										

Dome Temp. 65°F

Focus 1.53

Dome Temp.

Transparency Conditions

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0h50 E	+52° 05'	0	6.41	Bg.	6-6-6	Set 5. B8 Bg prog. Sens 8 {3960 3990 3995 30	Fair strong
0h.22 E	+15° 22'	0	8.0	gm2	9-9-9	Set 5 +/- Vel. Spec Bi Sens 8 {4035 40	fine
2h 51 W	+18° 29'	0	7.26	A2	6-6-6	Set 5 KA 8×8 Sens 8 {4040 4072 4082 3R.	?
1h 08 W	-62° 07'	0	5.59	Bg	6-6-6	Set 5. B 8 Bg. Sens 8 {4112 30	strong
					20/16	Set 9.	cirrus

02:00 Small swirl in Wheatstone bridge was making poor contact — this rise in temps of spec graph to 26°

03:00 Spec heater is not working properly. !!!

Now in Bridge-Hut

Box marked with x after 11 a.m.

1 Box of plates was left in dome Friday night will the heat kill?

Date ~~Jun-Mar~~ June 28-29/64 Observer HW-HB-HV Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27509	HD 139160	15 31.5	-25 57	I-25	IIa-O	.058	24°C	2112	2226	1
27510	HD 165814	18 02.7	-25 24	I-25	IIa-O	.008	24°C	2240	0034	2
	Focus TEST		OTB	"	"	"	22.5°			
	Focus Plate Tilt		15.53	for	F.T.					

15 cc Replenisher added

Dome Temp. 68° F

Focus 15.53 → (15.50)

Dome Temp.

Transparency Conditions Cleared off at 2100

0010 GALV. IN HEAT CONTROL NOT WORKING. HEAT SHUT OFF.
0045. TEMP +22°C. FOCUS CHANGED TO 15.50

Time	PE	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
6	1	01 03m W	-26 10	0-1	6.0	B9	6-6-6	set 5 B8-B9 prog. (3 1/2) seen 6 {4127 4130	strong
4	1	0046 W	-25 28	1	6.7	B8	6-6-6	set 5 " seen 6 {4132 4137	strong
							20/15	" 9	c. to wisps
								2 P.H. Loaded	
								Heat Control Malfunction !	
								Ex. MTR. " !	
								SKY " !	

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Date Mon-Tue June 29-30 Observer NR — RM Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27511	HD 131861	$14^h\ 50^m.9$	+45° 43'	I-25	IIaO-B	set .012	+28°.1	20 49	21 33	3
27512	HD 145792	16 07.7	−24 10	"	"	"	+28.1	21 47	22 57	4
27513	HD 139972	15 36.2	+52° 13	"	"	set .008	+28.0	23 22	00:10	1
27514	HD 158262	17 23.2	+11° 31	"	"	"	+28.0°	00:18	03:26	
	Focus test.									

Dome Temp. 82°F

Focus 15.59

Dome Temp. 75°F

Transparency Conditions Hazy

01:30 Getting very windy.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 55 W	+45° 26'	2	7.64	F3	5-9	Set 5 Sp. Bin KAF5 Sens 8 {4203 4238	fine
1 02 W	−24° 20'	0	7.0	B8	5-4-5	Set 5 B8-B9 (to max HA) Sen E {4241 4270	hazy
3:47 W	+56 00	1	7.20	B9	6-6-6	Set 5 KA8 x8 Set 8 {4281 4311 4314	strong wind
4h 15 W	+11° 25'	1	8.6	A	6-6	~~Set~~ 5 KA 8x8 Sens 9 {4338	Good
					20/16	Set 9.	

4 PH loaded.

Frank.

03.20 Exp meter was acting up again

(Confederation Day)

Date Tue-Wed June 30 - July 1st, 1964 **Observer** Ab Dq - Mt **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27515	HD139892	15h 35.6	+36°58'	I-25	IIaO	but .008	+31°C.	21h 00	21h 14	1
"	"	"	"	"	"	Long "	"	21h 16	21h 26	1
27516	HD 131861	14h 50.9 (1964)	+45°43' (1964)	"	"	.008 normal	"	21h 40	00:47	2
~~27517~~	~~ε Cep~~	~~22h 13.7~~	~~+56°52'~~	"	"	.008	"			3
27517	ε Cep	22h 13.7 (1964)	+56°52' (1964)	"	"	.008	31°C	01:03	01:10	3
"	"	"	"	"	"	"	"	01:10	01:18	"
27518	HD196755	20h 34.3	+57 44	"	"	"	"	01:28	01:31	4
"	"	"	"	"	"	"	"	01:34	01:38	4
"	"	"	"	"	"	"	"	01:41	01:50	4
27519	HD 197913	20h 41.6	+15 33	"	"	"	"	02:12	02:40	1
		"						02:42	03:40	1

Exp. Meter not going back to

Dome Temp. 83°F

Focus 15.65 set

Dome Temp. 77°

Transparency Conditions ..... Hazy

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0h 06'E	+36°45'	1	5.1	B3n	6-6-6	set 2 5 Gr B A. Spect. Bin. Abt 4 sec Hrs 5 {4859 4869}	strong
0h 06 W	"	1	"	"	6-6-6	set 5 " " " Hrs 5 {4872 4882}	"
4h 12 W	+45°26'	0	7.64	F3	6-6-6	set 5 KAFS Spect. Bin. Hrs 8 {4885}	good
			4.2	F0		At the end of the count the needle of the exposure meter gives a strong kick-back and then it does not return to zero.	
2h 44m E	+56 53	1	4.2	F0	18	set 2 For Fl. sens 5 {4955 4960}	fine
2h 35m E	"	1	"	"	"	set 5 " sens 5 {4760 4770}	strong
	9 56'	2	6.0	G5 III	6-12	set 2 YOSS Sun Std sens 6 {4972 4973 1,2}	wh
	7 56	2	"	"	6-12	set 5 " sens 6 {4974 4977 3}	wh
0 25 E	+9° 56'	1	"	"	6-12	set 8 " sens 6 {4978 4986 8}	strong
	+15 46	1	8.0	dG9	6-6-6	set 2 YOSS sens 7 {4987 4991}	
1:15 W	"	0-1			6-	set 5 (Star binary. Took brighter component)	

End after count.

Date Wed/Thurs July 1/2, 1964 Observer Ab Fl Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27520	HD 139892	$15^h\ 35.^m6$	$+26^\circ\ 58'$	I-25	IIaO b	set .008 long	$28.^\circ6$	$21^h\ 44^m$	$21^h\ 59^m.$	2
	"	"	"	"	"	"	"	$22^h\ 03^m$	$22^h\ 21^m.$	"
27521	HD 171391	$18^h\ 29.^m5$	$-11^\circ\ 03'$	"	"	.008 normal	"	$22^h\ 33$	23 25	3
	FOCUS TEST									

Thurs July 2: Sid. Electric clocks in both domes + clock slow ~ 45s ; reset
Standard clocks O.K. ?!?

Dome Temp. 73° F

Focus 15.71 - 0.11 = 15.60

Dome Temp.

Transparency Conditions Hazy + light cirrus slowing things down.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0h 44m W	+36° 46′	0-1	5	B8	6-6-6	Set 3 SLy B A Sp. binary Set 5 {5032 5042	strong
1h 05m W	"	"	"	"	"	Set 7 " " {5045 5055	strong
0 46E	−11° 00′	"	5	G7	6-R	Set 5 Standard Vel Had trouble with slits Set 6 {5072 5074	fine
				20/16		Clouded Out. 23:25.	
						SET 9	
						2 loaded plate holders in fridge.	

Same trouble with EXMTR as the previous night.

Date Fr/Sat Jul 3/4 1964 **Observer** vB/Re **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
345-3098	α CrB	15 33 0	+26 51		4/4/33	20		2125		
345-3099	10 Her	1609.5	+2335		5/5/33	28		2145		
345-3100	κ Ser	1546.5	+1815		5/4/33	28		2203		
345-3101	2' Her	1712.5	+1425		3/5/33	28		2218		
345-3102	HD156860	17h17m	+02°09'		6/4/33	28		2236	1½ +Sky	
345-3103	30 g HO	1628	+41 58		5/4/33	28		2312		
345-3104	α Lyr	18 35.6	+38 45		3/4/33	28		2325		
27522	HD176318	18h54.6m	+38 07	I25"	IIaOb	.008	24°C	0003	0035	1
27523	HD186547	19h40.0	+1303	I25"	IIaOb	.008	24°C	0115	0143	4
27524	HD198387	20h49.9	+5203	I25"	IIaOb	.008	24°C	0147	0305	2
27525	HD202109	21h08.7	+29°49'	I25"	IIaOb	.008	24°C	0309	0320	3
27525F	OTB Focus Test				20/14					

BOTH Primary AND Secondary now REALUMINISED 178

Dome Temp. 72°F V=900 Transparency Conditions 2200 altocum. dr. Stng South, N. clear
Focus 15.53 (24°C) No CO_2 2130 Fine
Dome Temp. 66°F 2220 Small isolated clouds
2400 Perfect, clear but windy

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0^h33^mW			2 73	AO V		ext. ST.	
00 13		8"	5.96	M4 III			
00 53W		8"	4.28	M1 III			
00 13 C		8"	3.1	M5:Ib-II		A+B → blue	
00 05		8"	6.91	M5 III		clouds	
01 15W			4.4	M6 III			
00 35C			0 0	AO V		ext ST.	
00^h10^mW	+38°13'	1	5.7	B8	6-6-6	B8-B9 set 5 sens 7 {4209 4220 (12) set 8 Foam OTD 20/10 c to w increased setting to 5.56	
00^h32^mW	+13°12	1	6.1	B9	6-6-6	B8-B9 set 5 sens 7 {6225 6237 (12)	
00^h50^mW	+52°11	2+	7.1	KOII	6-6-6	YOSS' set 1 25% set 5 50% set 9 100% | sens 7 (10) = 100%	
						Binary? secondary ≃ 12m blue at 20° 150°	
00^h38^mW	+30°03'	2	4.4	G8II		YOSS' set 1 25% set 5 50% set 9 100% | sens 7 (16) = 100%	
						have a look at R and close up 03^h38^m	
						Bad seeing & clouds	
							C is v wide!

Sat night visitors ~ 180 Showed M13 to 2nd group only. "Universe" to 1st group... Fl, Hw, Cc.

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Date July 4-5/64 **Observer** -Hv **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp. 20.0	Starting Time E.S.T.	Ending Time E.S.T.	P.
27526	HD 184467	19^h 29.5	+53° 24	I-25	IIaOb	.008	20.0	2335	0003	1
27527	" 190658	20^h 00.8	+15 13	"	"	"	20.0	0021	0119	2
27528	" 197913	20^h 41.6	15 33	"	"	"	19.9	0133	0345	3
	Focus Test				"	"				2

Dome Temp. +63°F

Transparency Conditions V. Good

180

Focus 15.47

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0052E	+58 30	0-1	7.5	K5	6-6-6	Set 5 · Std. Vel. #7 6317 6336	Fair
0010E	+15 22	0-1	8.0	gM2	6-12-9	" 5 H.V. Spect. Bin. #8 6337 6377	
~~00~~	+15 16	0	8.0	dG9	6-6-6	" 1 Yoss Pacs. South Comp. of Binary #8 6380 6404	
					20/15	" 9	OK
						1 P.H. Loaded.	

Date Sun-Mon July 5/6, 1964 Observer HW - Cr Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27529	H.D. 131861	$14^h 50.^m9$	$+45° 43'$	I-25	IIaoB	.008	23°	2108	2220	4
27530	H.D. 139892	$15^h 35.^m6$	$+36° 58'$	I-25	IIaoB	.008	23°	2231	2242	1
	"	"	"	"	"	.008 (Long)	"	2244	2252	"
27531	HD 165814	$18^h 02.^m7$	$-25° 29'$	I-25	IIaoB	.008 horizontal	"	2317	00 27	2
27532	HD 176411	18 55.1	+14 56	I-25	IIaoB	.008		00 34	00 36	3
								00 37	00 41	
								00 42	00 48	
27533	HD 183958	19 36.6	+17 15	I-25	IIaoB	.008		54	00 56	4
								57	01 01	
								01 02	01 10	
27534	HD 190658	20 00.8	+15 13	I-25	IIaoB	.008	23°	01 15	02 05	1
27535	HD 203638	21 18.4	-21 16	I-25	IIaoB	.008		02 11	03 03	2
27536	HD 193691 From test	19 46.2	+10 10	I-25	IIaoB	.008		03 12	03 24	3
27537	HD 212496	22 19.6	+51 44	I-25	IIaoB	.008		03 33	03 35	
								03 36	03 39	
								03 39	03 45	

Dome Temp. 72°
Focus 15.51
Dome Temp. 62°

Transparency Conditions Perfect!

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2h 6m W	+45° 27'	0-1	7.64	F3	6-6-6	set 5 SB KAFS	zero 8 {6413 6445
1h 44m W	+36° 44'	0-1	5.1	B8n	6-6-6	set 3 SB Ab & CrB.	zero 5 {6449 6459
1h 54m W	"	"	"	"	6-6-6	set 7 "	zero 5 {6461 6471
2h 59m W	-25° 29'	0	6.7	B8	6-6-6	set 5 B8-B9 Prog.	zero 7 {6478 6485
0 17m W	+15 00	0-1	5.2	K2	18	set 2	6 6486 88
					18	5 YOSS	6 58 92
0 30 W					18	8	6 92 6500
0 04 E	+17° 24'	0-1	5.4	G8 II	—	2	6 03 6h 05
					18	5 YOSS	6505 6509
0 10 W					18	8	6509 6517
0 41 W	+15 23	0-1	8.0	gM2	9-9-9	set 5 Hi Vel Sp. B.	zero 8 6517 6557
0 21 W	-21 02	0	5.5	gK2	6-6-6	set 5 Hdd Vel	zero 6 6565 6569
2 15 W	+10 19	0-1	5.8	F8	6-6-6	set 5 Hdd Vel	zero 6 6569 6574
					20/16	set 9	OK
0 08 E		0-1	5.6	G9 III	18	YOSS	zero 6 75 77
0 03 W					18	2 PH Loaded.	51 89

Date Mon. July 6-7 /64 Observer S, L, Fl, Cc Julian Day

Plate No. (15cc refract, Ektar 6 min exp)	Object NGC	R.A. ~~1950~~ 1960	Declination ~~1950~~ 1960	Inst. (Newt)	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.F.
27538	6838	19h 51.7m	+18° 39′		IIa-O			22:30	22:34	1
27539	6779	19h 15.0	+30° 06′		"			23:00	23:08	2
27540	6838	19 51.7	18 39		"			23 15	23 19	1
27541	6171	16 30.3	-12 58		"			00 10	00 22	2
27542	6649	18 31.2	-10 30		"			00 29	00 39	1
27543	6356	17 21.3	-17 47		"			00 44	00 52	2

Developed in a cuffine, sunset (1)

Correction $\Delta\delta = +9'$

Dome Temp. ..... Transparency Conditions .....

Focus .....

Dome Temp. .....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
						Focused on γ Oph Clouds in SW + elsewhere	
						Cannot reach further west	
						Focused on 70 Ophiuchi. Focus OK.	
						Cirrus clouds clear, platform tracking begins	
						01:15 EST	
						Main dome trolley has come unbracketed + fouled up.	
						A big repair job; so we quit for night	

Echo II overhead at 23:07

185 Echo II overhead $23^h\ 20^m$ E.S.T.

Date July 7/8/64 (Tues-Wed) **Observer** S, CC, Hs, Cn **Julian Day**

Plate No.	Object NGC	R.A. ~~1900~~ 1960	Declination ~~1900~~ 1960	Inst. New	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27544	5904	$15^h\ 16.6$	+2 14		IIaO			$22^h\ 25^m\ 5^s$	$22^h\ 29^m\ 5^s$	1
27545	6171	16 30.3	-12 58					$22^h\ 08^m\ 20^s$	$22^h\ 18^m\ 20^s$	2
27546	6218	16 45.1	-01 53					$22\ 23^m\ 45^s$	$22\ 25^m\ 45^s$	1
27547	6254	16 55.0	-04 03					$22\ 31\ 50^s$	$22^h\ 33^m\ 50^s$	2
~~27548~~										

Developed in D-76
Curve (A)

Dome Temp. .....

Focus .....

Dome Temp. .....

Transparency Conditions ..... POOR!

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
32 W						Clouds in early eve - began to break 9:30 Focused on Focus unchanged from last night	
35 W							
07 W							
25 W						Closed out 10:40	
		red on	invisible 6366			invisible 6535 unsuccessfully ~23h, absorption 5 mag 6838 too!	
						12:00 Thick clouds everywhere	

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Wed - Thurs

Date July 8/9/64 **Observer** S-L **Julian Day**

Plate No.	Object	R.A. 1950	Declination 1950	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
	NGC			NEWT						
27548	6838	19 51.7	18 39		IIaO			00 24	00 28	X
27549	6934	20 32.2	7 16		"			00 34	00 44	2
27550	7089	21 31.4	-01.00		"			00 53 30	00 54	1

Both of Sid clocks reset by 45 sec
Have probably been fast by
this amount since July 2

Dome Temp. .....

Focus .....

Dome Temp. .....

Transparency Conditions .....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 33E		very good				Heavy clouds in Early eve - Breaking 11:00. Focused on V Serpens Heavy cloud band in SW, so have to work N of Equator 1:00 Whole sky has now filled in again - so we quit.	

189

F1

Date Thurs-Fri July 9/10 1964 Observer S, CC, Hr, Cx Julian Day 2438586.5

Plate No.	Object	R.A. ~~1900~~ 1960	Declination ~~1900~~ 1960	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
								(unguided)		
27551	NGC 5904	15 16.6	+02 14	NEWT	103a O			21h 26m 34s	21 27 34	1
27552	6218	16 45.1	-01 53		"			21h 34m 20s	21 37 20	2
27553	6254	16 55.0	-04 03		"			21h 40m 20s	21h 43m 20s	1
27554	6838	19 51.7	+18 39	"	"			23 58 30	00 02 30	2
27555	6712	18 [illegible]	-8 46					00 08	00 16	1
27556	6934	20 32.2	+7 16	"	"			00 25 10	00 35	2
27557	6838	19 51.9	+18 39	"	"			00 40 05	00 44 05	

Developed in D-19
Curve (15)

Dome Temp. .....

Focus ..... Focused on α Sgr 4 days

Dome Temp. .....

Transparency Conditions ... OK, though light cloud

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1 05W	21° 20′	Self-cocus				lights are terrible !	
00 14E	21° 34′	cloud over big dipper & also in south & in N					
00 17E	21 [illegible]	broken cloud over whole sky					
00 55E	set on 6402					invisible completely, also 6402 virtually invisible Rim haze cloud	
00 20W						11:30 There has been no lit ups in clouds. They are now heavier than ever over whole sky.	
01 02E							
0 13E	looked at 6402	at	11h 55m			- still hopeless Heavy pulses of haze over sky	
						12:30 Clouds piling over sky again - 12:45 quitting - might be open to continue	

Date FRI-SAT JULY 10-11/64 **Observer** vdB Hr-S **Julian Day** 2438587.5

Plate No.	Object	R.A. ~~1900~~ 1960	Declination ~~1900~~ 1960	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27558	6341 M 92	17 15.9	43 11	NEWT.	103aO			21 50	22 20	2
27559	6402	17 35.5	-03 13	"	"			23 25	23 37	1
27560	6093	16 14.7	-22 54	"	"			23 43	23 49	2
27561	6171	16 30.3	-12 58					23 54	00 06	1
27562	6356	17 21.3	-17 47					00 17	00 25	2
27563	6838	19 51.7	+18 39					00 50	00 54	1
27564	6934	20 32.2	+7 16					01 00 30	01 10 30	2
27565	6656	18 33.9	-23 58					01 17 50	01 21 50	1
27566	6626	18 21.1	-24 54					01 30	01 36	2
27567	6514	18 [illegible]	-24 [illegible]					01 45 30	01 55 30	1
27568	6535	18 01.8	-00 18					02 09 30	02 21 30	2
27569	6712	18 50.2	-09 46					02 27	02 35	1
27570	6838	19 51.7	+18 39					02 41 00	02 45	2
27571	6934	20 32.02	+07 16					02 50 [illegible]	03 00 [illegible]	1
27572	6981	20 51.3	-12 42					03 05 30	03 19 30	
27573	7089	21 31.4	-01 [illegible]					03 25 25	03 30 25	

Dome Temp. +74°F

Transparency Conditions V. Good.

Focus .....

Dome Temp. .....

Sec Correction used +91

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	EX. TIME Gauge	REMARKS	Quality
00 03 W?	App. 8" X 10" approx.				30m	No Film Plate Developed.	
01 00 W?	Dia. Removed				12m	Focus on η Sgr. Started cluster program	
02 33 W?					6m		
3 23 5 W					12m		
3 20 3 W					8m	00 15 Dome cable giving trouble. Neg. trolley repaired Wire loose	
3 0 0 0					4m	Seeing not very good	
3 0 2 3 E					10m		
3 15 7 W					4m		
3 2 1 3 W					6m		
3 4 m W					10m		
3 3 1 9 W					12m	Focus on β Sgr. focus not changed	
3 3 m W					8m		
3 1 5 2 W					4m		
3 1 2 7 W					10m		
0 1 2 8 W					4m ~~12m~~		
3 5 5 1 W					30s	This was much the best night of the whole run	

193 Sat. Sun July 11 160 minutes, cleared Cassiopeia Cor, Her, Dra (I.E.)

Date ..... **Observer** ..... **Julian Day** .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H

Dome Tem
Focus
Dome Tem

Hour Angle End

Dome Temp. .....

Focus .....

Dome Temp. .....

Transparency Conditions .....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality

Date Wed-Thurs July 15/16 -1964 Observer AB HW - RM Julian Day 2438592.5
⊙ 113 29 11.8 3434.3

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	
15 cw w.c.cw										
27574	HD139892	15^h 35.6	+36° 58'	I-25	IIaob	long .008	23	20:55	21:17	1
"	"	"	"	"	"	"	"	21:31	21:42	
27575	HD168322	18^h 14.0	+40° 54'	I-25	IIaob	normal .008	"	21:53	21:58	2
"	"	"	"	"	"	"	"	21:58½	22:06½	"
"	"	"	"	"	"	Reset .008 normal	"	22:08	22:23	"
27576	HD166621	18^h 06.4	+18° 28'	"	"	"	"	22:40	23:13	3
27577	HD171461	18^h 29.7	+52° 01'	"	"	"	"	23:26	23:39	4
27578	HD175132	18^h 48.9	+41° 16'	"	"	"	"	23:51	00:02	1
27579	HD 177410	18 59.5	+69° 23'	"	"	"	23°c	00:16	00:26	2
27580	HD 183143	19 23.0	+18° 05'	"	"	"	23°c	00:41	01:40	3
27581	HD 195387	20 14.9	+52° 03'	"	"	"	23°c	01:56	02:34	4
	"	"		"	"	"		02:34	02:49	
	"	"	"	"	"	"	"	02:49	02:56	
27582	19 CEP	22 02.1	+61° 48'	"	"	"	23°c	03:01	03:16	1
								03:18	03:23	"
								03:25	03:29	

Dome Temp. 72

Focus 15.51

Dome Temp. 67

Transparency Conditions Fair

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.		REMARKS		Quality
0h 57m W	+36° 45'	0	5.1	B8n	6-6-6	Set 2	SCRB A	Set 5 {6595 6605	Strong
1h 23m W	"	1-2	"	"	6-6-6	set 7	"	set 5 {6609 6614	"
0h 59m E	+40° 57'	2	7.1	KO II	6-6-6	Set 2	{Yoss Programme Check if right stars}	Set 7 {6621 6625	
0h 51m E	"	2	"	"	6-6-6	set 5		" {6626 6634	
0h 35m E	"	3	"	"	6-6-6	Set 8	"	" {6636 6652	
0h 23m W	+18° 28'	2	7.26	A2	6-6-6	Set 5	KA 8 x 8	" {6654 6676	fine
0h 26m W	+52° 06'	2-1	6.41	B9	6-6-6	set 5	B8-B9	set 6 {6669 6674	
0h 30m W	+14° 20'	1	6.18	B9	6-6-6	Set 5	B8-139	Set 6 {6676 6682 6683	
0h 46m W	+69° 26'	1	6.38	B9	6-6-6	Set 5	B8-B9.	Set 6 {6611 6615	fine
1h 33m W	+18° 12'	1	6.7	B7Ia	6-6-6	Set 5	MK. STD.	Set 6 {6699 6702	fine
1h 7m W	+52° 17'	1	7.1	dKO	6-6-6	Set 2	1/100 Lum. Stds.	Set 5 {6742 100%	fine
1h 22m W		1	"	"	6-6-6	Set 5		{6742 6762 50%	good
1h 25m W		1	"	"	6-6-6	Set 8		{6762 6772 25%	bad
0h 31m W	+62° 06'	2	5.17	09.5 IV	6-6-6	Set 1	MK STDS.	Set 6 {6784 6794 2x	
0h 37m W		2	"	"	6-6-6	Set 4	"	" {6791 6803 1x	
0h 43m W		2	"	"	9-9	Set 7	"	" {6806 6808½ ½x	bad good

Date Wed Thurs 15/16 64 Observer RM Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
27583	HD 225289 ∇ Focus	23 59.7	+60°16'	26"	IIaoh.	.008	23°C	03:39	03.46.	2.
		test								
		Developed & enlarged curve (2)								

Dome Ter
Focus
Dome Te
Hour Ang
End

Dome Temp. ... ...

Focus ... ...

Dome Temp. ... ...

Transparency Conditions ... ...

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
~~0.68E~~	+60° 05' ?	1	5.85	B9	6-6-6	Set 5 B8 B9. Seq 7 6813 6825	drop
					20/16	Set 9.	OK
			4 P H			loaded.	

Date Thurs-Fri 16/17 July 64 **Observer** L-Hb-Ck-HV **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27584	HD128296	14 31.0	+11 30	I-25	IIaO-b	.008	26°C	20h54m	23h27	1
27585	HD178744	19 04.7	-00 36	I-25	IIaOb	.008	"	23h38m	0020	2
27586	HD 182308	19 19.0	+64 13	"	"	"	"	0037	0057	3
27587	" 184467	19 29.5	+58 24	"	"	"	"	0108	0230	1
	Focus Test				OTB					
15 cc. open										

Dome Temp. 76°F
Focus 15.56
Dome Temp.

0130 a few Clouds.
0150 Move "
0230 " "

Transparency Conditions Fair, haze

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
4h15m W	+11° 13′	1	7.52	A3	6-6-	Set 5 KA 8k8 Temp at platform Sens 7 {6840 6849.5 6855	fine
0035W	-0030	1-2	634	B8	6-6-6	Set 5 B8-B9 Sens 7 6867	strong
0102W	+64 18	0-1	6.31	B9	6-6-6	" 5 B8-B9 #7 6869 6881	strong
0223W	58 29	0-1	7.5	K5	6-6-6	" 5 STD VEL #8 6883 6923	
					20/15	" 9	

4 P.H. Loaded in fridge

Date Fri/Sat July 17/18 **Observer** Val B-McL **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
346-3105	α CrB	15h 33.7	26° 51'	I	4/4/33	28		20:47		
346-3106	κ Ser	1546.5	+18° 15'	I	5/4/33	28		21:08		
346-3107	10 Hu	1609.5	+23 35	I	5/5/2½h	28		21:35		
346-3108	30=g Her	16 28	+41 58	I	5/4/2½h	28		2202		
346-3109	ζ' Her	17 17.5	+14 25	I	4/5/2½h	28		22 31		
346-3110	HD 156 860	17h 17	+02 00	I	6/6/24+33	28		2253	1x+5½	
346-3111	ζ Lyr	18 35.6	+38 45	I	3/4/24	28		2321	2x	
27588	HD 203573 B	21h 18.4m	-21° 16'	I 25	IIaOb	.006	27.5	00:39	01 37	1
27589	HD 196755	20° 34' 3	+09° 41'	"	"	"	"	01 51	01 56	2
	"	"	"	"	"	"	"	01:59	02 39	"
	"	"	"	"	"	"	"	02:11	02:28	"
27590	HD 199467	1929.5	+50° 24'	"	"	"	"	02.57	03:55	3
	Focus Test		ΔTB							

Dome Temp. 80° F V = 300 NO CO_2

Focus 15.59

Dome Temp. 73° F

Transparency Conditions Clear, Clouds in NW
Very red Setting Sun
Tropical Air Mass
01:00 - Good.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0h 50 W		4"	2.23	AOV		ext. ST.	
0h 53+01 03 W		5"	4.28	M1III			
0h 55m W - 01 05 W		4"	5.96	M4III			
01h 05m W - 01h 15m W		5+	4.4 v	M6III			
00 50 + 0100 W		4"	3.1	M5; Ib-II		A + B	
01 10 + 01 20 W		4+	6.9	M5III		close to pW	
00 20m W	+ 00 40 W	-	0.0	AOV		ext ST Haze?	
0h 17m E	−21° 00′	1	5.5	gK2	6-6-6	Set 5 STD. VEL #6 {6932 6939	2 wk
0h 45m W	+9° 58′	1	6.0	G5III	6-6-6	Set 2 YOSS #7 {6942 6946	4th l wk
0° 58m N	"	1	"	"	6-6-6	Set 5 " #7 {6947 6955	5th good
1h 18m N	"	0+	"	"	6-6-6	Set 8 " #7 {6956 6972	10th l wk
3h 52m W	+ 58° 30′	1+	7.5	K5	6-6-6	set 5 STD. VEL #7 {6976 6992	l wk
					20/16		0 wk
						1PH Loaded in Frig.	
				Pencils		are racked in the dome!	

203 160 visitors; showed 1) α Her AB
2) M 13

Miss Northcott,
Dm, Mel, Sm.

Date July 15/19 (Sat. Sun.) **Observer** - MT **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27591	HD 171461	18h 29.9	+52° 01	F 13	Ilford	set 1008	29°C	23:05	0:30	4
27592	HD 203638	21 18.4	-21 16	"	"	"	"	1:44	2:44	1
27593	34 Peg	22 21.5	+03 53	"	"	"	"	2:52	3:50	2
	~~HD 210839~~	~~22 22.8~~	~~+04 12~~							
	Focus test OTB									

Taken by mistake

Dome Temp. 78°

Focus set 15.62

Dome Temp.

Transparency Conditions hazy occasional light cloud

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1:30W	+52 05	1	6.47	B9	6-6-6	set 5 B8 - B9 seen 6 {6997 7003	fine
0 25W?	-21 00	0	5.5	9K2	6-6-6	set 5 (held up by cloud!) standard Dieboldt seen 6 {7003 7006	wk
2:52W	+04 (14)	1		G0	6-6-6	set 5 ——— seen 6 {7007 7011	fine
							G K
						2 P.H. loaded in fridge	

Date Sun/Mon July 19/20 1964 Observer CK HW - HV Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit (long set)	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27594	HD 139892	$15^h 35.6$	$+36° 58$	1-25	IIaob	.008	30C	2107	2128	3
"	"	"	"	"	"	"	"	2130	2149	"
27595	HD168322	$18^h 14.0$	$+40° 54$	1-25	IIaob	normal .008	"	2210	2220	4
"	"	"	"	"	"	"	"	2222	2240	"
"	"	"	"	"	"	"	"	2241	2329	"
27596	HD176411	$18^h 55.1$	$+14° 56$	1-25	IIaob	.008	"	2339	2343	1
"	"	"	"	"	"	"	"	2343	2350	"
"	"	"	"	"	"	"	"	2350	0028	"

Dome Temp. 83°F

Focus 15.63

Dome Temp. .....

Transparency Conditions 0001 Clouds

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
4h 24m W	+36°45'	0	5.1	B8n	6-6-	set 3 9 Cr-BA 5B set 5 { 7028 7038	Extremely
4h 45m W	"	0	"	"	6-6 6	set 7 " set 5 { 7039 7049	"
0h 25m E	+40°55'	0	7.1	K0 III	6-	set 2 Yoss. set 7 { 7053 7057	
0h 2m E	"	0-1	"	"	6-66	set 5 " set 7 { 7059 7067	
0h 47m W	"	0-1	"	"	6-6-6	set 8 " set 7 { 7068 7084	
0h 19m W	+15°00'	0	5.2	K2	6-12	set 2 Yoss set 5 { 7088 7096	good
0h 26m W	"	0	"	"	66-6	set 5 " set 5 { 7092 7096	
0105 W	"	0	"	"	6-6-6	set 8 " set 5 { 7097 7105	

My focus test
Didn't want to waste a plate.

Date Mon/Tues July 20/21 Observer Hd - Hb Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27597	HD 139892	15h 35m.6	+36 58	I-2'	IIaO-b	.008	28°5C	21 02	21 46	1
"	"	"	"	"	"	"	"	21 47	22 36	"
27598	HD 185958	19 36.6	+17 15	"	"	"	28°C	22 44	23 18	2
	Focus test									
155C refrom.			Looking like my hour seen short 1m; is 5.1m instead of 6.1							

Dome Temp. 76°F

Focus 15.60

Dome Temp.

Transparency Conditions light patches & ts

Clouds becoming shading worse

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
W 1h 45	+36° 45	0-1	5:1	B8n	6-6-6	set 2 Ab spectrum brightest comp. sens 8 {7111 7121	
W 2h 35	+36 46	1	"	"	6-6-6	" 6 " " {7121 7131	
E 42m	+17 23	1	5:4	G8	6-6-6	set 2 Yoo Lun Stand sens 8 {7134	
	OTB5				20/16	" 6 Very cloudy, lightning in W.	
						2 load plateholders in frig.	

Date Tue - Wed July 21/22, 1964 **Observer** Rn Dz - Hr **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27599	HD 139892	15h 35.6	+36° 58'	I-25	IIaO b	Jut .008	29.8c	21h 10	21h 36	3
"	"	"	"	"	"	"	"	21h 38	21h 58	"
27600	HD 177410	18h 59.5	+69° 23'	"	"	"	"	22h 12	22h 58	4
27601	HD 171391	18h 29.5	-11° 03'	"	"	"	"	23h 10	23h 30	1
27602	HD 184467	19h 29.5	+58° 24'	"	"	"		23h 44	00 18	2
27603	" 190658	20 00.8	+15 13	"	"	"	29.1°	00 30	01 50	3
27604	" 212496	22 19.6	51 44	"	"	"		0217	0219	4
	"	"	"	"	"	"		0220	0223	"
	"	"	"	"	"	"	29.0°	0228	0234	"
	Focus Test OTB									3

Dome Temp. +82°F

Focus 15.61 set

Dome Temp.

0220 few clouds; lightning in West

0240 More clouds

Transparency Conditions Some clouds and haze

22:40 Echo II from the SW to NW strong 4 mv.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.		REMARKS			Quality
1h40W	+36°45'	0-1	5.1	B8n	6-6-6	set 3	5GB. A	Ab. S.B.	7155 sens 5 7165	strong
2h02W	"	1-2	"	"	6-6-6	set 7	"	"	7168 sens 5 7178	"
0h15E	+69°27'	1	6.38	B9	6-6-6	set 8	B8-B9		7183 sens 7 7195	2 exp 1 strong
0h40W	−11°01'	1	5.2	gG7	6-6-6	set 5	5 tA Vel. Stars		7197 sens. 6 7202	fair
1h30W	+59 29	1	7.5	K5	6-6-6	set 5	" " "		7205 sens. 7 7221	fair
1h29W	+15 24	0-1	8.0	gM2	9-9-9	" 5	vdB Spect. Bin.		#8 7223 7263	good
		0-1	5.6	G9 III	18	" 1	Yoss.	25%	#5 7274 7276	
		"	"	"	18	5	"	50%	" 7279 7283	strong
0h05E	+52°03'	"	"	"	18	9	"	100%	" 7284 7292	strong
					20/1	Set 7				OK
							3 P.H. loaded			

211 BELL TEL. IS GOING out NO-5 INTO HEAVY CLOUD AT
Echo due west altitude about 50° at 2h14m E.S.T.

Date Wed - Thurs, July 22/23, 1964 **Observer** Mt Ck - Hr **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P
27605	5 Cn B A HD 139892	15h 35.6m	+38° 58'	I-25	IIaOb	.008	30.5°C	20h 38m	20h 58m	1
"	"	"	"	"	"	"	"	20h 59m	21:19	1
27606	HD 144579	16 01.5	+39 24	"	"	"	"	21h 29m	00:20	3
27607	HD 203374	21 16.7	+61°25	I25	IIaOb	.008	30.5°C	00h:27m	01:31	3
27608	HD 205060	21 27.7	+42°16	I25	IIaOb	.008	30.0°C	01h40m	02:13	4

15CC replen

Dome Temp. 82°F
Focus set 15.63
Dome Temp. 72°F

Transparency Conditions Excellent at first
Light cloud begins
Isolated clouds by 0100

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1h05W	+36°45'	0	5.1	B8n	6-6-6	set 3 Ab Sp. Binary sens 5 {7296 7306	strong
1h27W	"	1	"	"	6-6-5	set 7 " " {7307 7317	strong
4h05W	+39°15'	1	7.2	G8	6-6-6	set 5 Standard Velocity sens 7 {7319 7338	strong
0h01E	+61°40'	2	6.6	B0	6-6-6	set 5 Be sens 7 {7336 7348	faint?
0h30W	+42°31'	1	7.1	B5	6-12	set 5 Be (fast drift in RA) broken clouds 0200 sens 8 {7349 (40 sec) 7355 30!	Thin
						0215 CLOUDS & haze	
						set 9 OTB 20/15	Cl to mod
						close up 0220	

Date Thurs/Fri July 23/24, 1964 Observer L / Ab - mcl Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
27609	HD139892	$15^h 35^m 5.6$	$+36° 58'$	I-25	IIaO-b	set .008 long	29.5	20:44	20:54	3
"	"	"	"	"	"	"	"	20:56	21:05	3
27610	HD 168957	18 17.3	25 01	"	"	normal	29.5	22 30	23:46	1
27611	HD 192044	$20^h 07^m 8$	$+26° 11'$	"	"	.008	29.4	00:00	00:20	2
27612	HD 192445	$20^h 09^m 8$	$+36° 02'$	"	"	"	"	00:28	01:24	3
27613	HD 212943	$22^h 22^m 8$	$+04° 12'$	"	"	"	"	01:35	01:45	4
27614	HD 206773	$21^h 39^m 3$	$+57° 17'$	"	"	"	"	02:00	02:28	1
27615	HD 223501	$23^h 45^m 0$	$+61° 39'$	"	"	"	29.0	02:39	03:33	2
27616	HD 217050	22 52.7	+48 09	"	"	"	28.7	03:45	03:53	3
	Focus Test	OTB								

Dome Temp. 82°

Focus 15·73-0·11 = 15·62

Dome Temp. 73°

Transparency Conditions High Cirrus most of the time.

Clouds 21.00 - 22.30

00:30 Cleared again - still High Cirrus

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1h 06m W	36° 45′ N	0-1	5·1	B8n	6-6-6	Set 2 — 5 Cr BA sp Cin Set 5 { 7380 7390	strong
1h 17m W	"	"	"	"	6-6-6	Set 8 " " { 7392 7400	"
1h 16m W	25° 01′ N	0-1	6.9	B5e	6-6-6	Set 5 Be programme " 7 { 7410 7422	fine
0h 0m	+26° 22′	1	5.9	B8ne	6-6-6	Set 5 Be " " 7 { 7426 7438	l strong
1h 2m W	+36° 13′	0-1	7.1	B2ne	6-6-6	Set 5 " " " 7 { 7439 7451	fine
0h 49m E	+04° 30′	1+	5.9	Ko	6-6-6	Set 5 STD. VEL " 7 { 7453 7469	l strong
0h 37m W	+57° 33′	1-2	7.0	B0ne	6-6-6	Set 5 Be Programme " 7 { 7471 7483	"
0h 24m E	+62° 00′	1-2	8.2	B3e	6-6-6	Set 5 " " 8 { 7486 7516	fine
0h 39m W	+48° 27′	2	5.2	B3ne	6-6-6	Set 5 " " 5 { 7518 7523	strong
					20/16	C. sl. to violet	

3 P.H. Coated in frig.

Date Fri Sat, July 24/25 Observer WH IVt Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27617	ρ Cr B. H HD 139892	15h 35.6	+35° 58′	I-25	IIa-h	red .008 long	28°C	20h 34	21h 26m	4
"	"	"	"	"	"	"	"	21h 27m	22h 05m	"
27618	MWC 343 HD 194335	20 20.3	+37° 10′	"	"	.008	"	22 13m	22 53	1
27619	MWC 336 HD 193009	20 12.9	+32° 04′	"	"	"	"	22h 58m	24 09	2
"	Focus Test									

Dome Temp. 77°F

Focus set 15.59

Dome Temp.

Transparency Conditions very thick haze + some dew on Dome.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
1h 41m W	+36° 46'	-1 to 0	5.1	B8ne	6-6-6	set 3 Sp. Binary. sens 5 {7540 7550	strong
2h 20m W	"	0	"	"	6-6-6	set 8 " " {7551 7559	"
1h 35m E	+37° 20'	1	5.7	B3ne	6-6-6	set 5 Be Programme sens 5 {7560 7566	"
0h 12m E	+32° 16'	0	7.0	BOne	6-12	set 5 " sens 7 {7567 7572	Just ok
					20/16	set 9	OK

Heavy dew. Closed up 00:15

1 P.H. loaded in fridge

217 Sat. July 25, 1964 Showed "Universe" to both groups ~80 persons/group. - Fl, Cc, Hw.

Date ..... **Observer** ..... **Julian Day** .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P

Dome Temp. .....

Focus .....

Dome Temp. .....

Transparency Conditions .

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality

Date Sun/Mon July 26/27 84 Observer HW – HS Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27620	HD 139892	$15^h35^m.6$	+36°58'	I-25	IIaob	set .008 (long)	28°	2038	2049	3
"	"	"	"	"	"	"	"	2050	2101	"
27621	HD 158262	$17^h23^m.2$	+11°31	I-25	IIaob	.008 (cross)	"	2113	0023	4
27622*	HD 193009 MWC 336	20 12.9	+32 04	"	"	"	27.5	0035	0055	1
27623	HD 193237 MWC 346	20 26.0	+36 39	"	"	"	27.4	0101	0159	2
27624	HD 209296 MWC 383	21 57.2	+56 14	"	"	"	"	0207	0359	3
	Focus Test		CTO							

* Numbered 27662 by mistake!

Dome Temp. 78°F

Focus 15.59

Dome Temp.

Echo I

0300 Echo II W→E through U.Min.

0330 Occasional Clouds

Transparency Conditions Good.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS		Quality
1h 13m W	+36°45'	0-1	5.1	B8n	6-6-6	set 3	5 CorBorA set 5 {7574 7584	Strong
1h 25m W	"	"	"	"	6-6-6	set 7	" set 5 {7525 7595	"
0259 W	+11°26'	0	8.6	A	6-6-6	set 5	KA 8x8 set 8 {7599 7629	fine
0042 W	+32 16	0-1	7.0	Bone	6-6-6	" 5	Hd Be #7 7631 7643	Strong
0137 W	36 51	0	7.7	B3e	6-6-6	" 5	" " #7 7644 7656	"
0202 W	56 33	C	3.1	B5e	6-6-6	" 5	" " #8 7657 7687	strong
					20/15	" 9		Cat 1010

4P.H Loaded.

221 switched off first

vT = van 't Foort
Lv ~~Lay~~ = Levy

Date Mon July 27-28/64 Observer Nd. - RM. Julian Day 2438604.

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
27625	3 Cr B A	15 35.6	36 58	I-25	IIaO	long 008	29.1	21 23	21 49	1
							29.1	21 50	22 24	1
	Focus test									1
27626	HD 164284	17 55.3	+4 22	"	"	med 008		22 44	22 54	2
27627	HD 175863	18 52.3	+59 53	"	"	008	29.0	23 03	23 55	3
27628	HD 198183	20 43.5	+36° 07	"	"	"	29.0°	00:15	00:23	4
27629	HD 198478	20 45.5	+45 45	"	"	"	29.0	00:37	00:42	1
27630	HD 205310	20 51.6	+45 46	"	"	"	29.0	00:51	01:02	2
27631	HD 200775	21 00.4	+67° 47'	"	"	"	29.0	01:16	01:47	3
27632	HD 205682	21 52.9	64° 52'	"	"	"	28.9	02:14	02:20	4
27633	HD 217543	22 56.3	-38° 10'	"	"	"	28.9	02:30	02:42	1
27634	HD 3546	00 33.3	-25° 46'	"	"	"	28.9	03:03	03:07	2
							"	03:09	03:11	"
							"	03:12	03:16	"
27635	HD 3038	0 28.6	-66° 12'	Focus test			28.9	03:40	03:58	

Dome Temp. 77°F

Focus 15.61

Dome Temp. 77°F

Transparency Conditions Quite cloudy

03:20 Clouds closing in

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
W 2h 17	36:46	3-1	5.1	B8n	6-6-6	Set 2 Ab bin. long slit sens 5 7690 7700	strong
W 2h 51					6-6-6	" 5 clouds worse. " 7701 7711	" gust
					20/15	" 8- " 7713	OK
W 1h 03	+4 22	2	4.8	B5n	6-6-6	" 5 Be prog. sens 5 7718	fine
W 1h 08	+59 58	1	6.9	B4e	6-6-6	" 5 " " sens 7 7719 7731	"
0h 23	+36° 22	1	4.5	B6e	6-6-6	" 5 Be Prog. Sens 6 7735 7741	extremely
0h 0m.	-46° 00'	1	4.9	B2.5e	6-6-6	" 5 " Sens 6 7759 7765	"
0h 4m	-46° 00'	1	5.2	B3me	6-6-6	" 5 " Sens 7 7769 7780	strong
0h 53	+68° 00'	1	7.2	B5e	6-6-6	" " " 9 7787 7819	fine gust
						"East" slow motion not working	
0h 32		1	5.8	B3ne	6-6-6	Be Prog. Sens 6 7830 7835 7837	fine
0h 11	+38° 30'	1	6.4	B3ne	6-6-6	Set 5 " Sens 7 7851	extremely
1h 24	+29°07'	2	5.3	G III p	6-12	Set 5 Yes from SW Sens 6 7857 7861	Lot
1h 20					9-9	Set 1 " 7867 7879	Fine
1h 15					6-6-6	Set 9 " 7879 7884	"
0h 28	66° 32'	0	6.40	B9	6-6-6	Set 5 B8-B9 7	fine

223

1500 rpbw

Date Tues, July 28,29, 1964 **Observer** Fl; Hb **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
27636	HD 195592 MWC 347	$20^h\ 27^m.2$	$+43^\circ\ 59'$	I-25	IIaO bkd	0.008	31.0°	22:34	00:39	2
27636F	FOCUS TEST									1

Dome Temp. 80° F

Focus 15.76 - 0.11 = 15.65

Dome Temp.

Transparency Conditions FAIR - Haze Hook Apparent after Midnight.

100% Cloud cover at beginning of night, until ~ 22:00.

24:00: Light attenuation from NW, Thickening (0100)

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	Test	REMARKS	Quality
CO 20 W	44° 12′	0+	7.2	PIC	6-6-6	Set 5	Be Program Secs 8 {7913 7948 DELAY DUE TO CLOUDS	
							Closed up 01 45 EST	
							3 PH loaded in fwig →	

225 Feb = Alm m. 21:22 EST

Date Wed-Thurs July 29-30/64 Observer Co. - McC Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
27637	CLBA HD 139892	15h 35m.6	+36° 58'	1-25	IIaO	.008	25.5°C	20:37	20:49	2
	"	"	"	"	"	"	"	20:49	20:59	2
27638	HD158704	17h 25m.6	-26° 11'	"	"	.008 normal	"	21:05	21:53	3
27639	HD171957	18h 32m.4	-14° 06'	"	"	"	"	22:10	23:06	4
27640	HD208392	21 50.9	+62° 8'	"	"	"	"	23:31	00:13	1
	"	"	"	"	"	"	24.7°	00 17	00:57	1
	"	"	"	"	"	"	"	00 58	01 36	1
27641	"	"	"	"	"	"	"	01:37	02.15	2
	"	"	"	"	"	"	24.4°	02:16	03.08	2
	"	"	"	"	"	"	"	03:09	03:53	2
27642	"	"	"	"	"	"	"	03:54	04:20	3
	Focus Test		OTB							

15 CC Hefler

Dome Temp. 70°F

Transparency Conditions Excellent

Focus 15.66 − .11 = 15.55

Dome Temp. 61°

02:30 – very windy – blowing stars out of field

Time T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS		Quality
9	2h 01m 25s W	+36° 46′	0	5.1	B8x	6-6-6	Set 2 Ab. Sp Bin.	Set 5 { 7975 (11) 7985	strong
9	2h 01m 35s W	"	0	"	"	6-6-6	set 5 Ab Sp. Bin	set 5 { 7986 (12) 7993	"
3	2h 00m 37s W	−26° 14′	0	5.9	B9	6-6-6	Set 5 B8-B9	Set 7 { 7995 (13) 8007	fuzzy
6	2h 00m 44s W	−14° 02′	0	6.43	B9	6-6-6	set 5 B8-B9	Set 7 { 8008 (1) 8020	"
13	1h 26m E	+62° 26′	0	7	B2	6-6-6	set 2 Ab Ecl. Bin	set 7 { 8022 (11) 8034	"
7	0h 42m E	"	0	"	"	6-6-6	set 5 " " "	" { 8035 (12) 8047	"
	0h 03m E	"	0	"	"	6-6-6	set 8 " " "	" { 8048 (1R) 8060	"
5	0h 32m W	"	0	"	"	6-6-6	Set 2 " " "	" { 8062 (1R) 8074	"
8	1h 29m W	"	0+	"	"	6-6-6	set 5 " " "	" { 8075 (1) 8087	"
13	2h 15m W	"	1	"	"	6-6-6	Set 8 " " "	" { 8088 (12) 8100	"
30	3h 41m W	"	0-1	"	"	6-6-	Set 5 " " "	7 { 8101 8110	"
						20/12	Set 9		C to vis

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Date Thurs July 30 1964 Observer L - Lv - RM Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	
27643	HD 139892	15 35.6	36 58	I-25	IIIaO	L set .008		20 48	21 03	4
	"	"	"	"	"	"		21 04	21 23	
27644	HD 171957	18 32.4	-14 06	"	"	M .008	21.6	21 28	22 29	1
27645	HD 177863	19 01.3	-18 54	"	"	"	21.8	22 42	23 21	2
27646	HD 196712	20 34.0	-02 46	"	"	"	21.6	23 48	00:10	3
27647	HD 200340	20 57.8	-01 19	"	"	"	21.3	00:20	00 56	4
27648	HD 203394	21 50.9	+62° 8'	"	"	"	21.3	01:14	01:42	1
"	"	"	"	"	"	"	21.3	01:43	02:07	1
"	"	"	"	"	"	"	21.3	02:08	02:25	1
27649	"	"	"	"	"	"	21.0	02:31	02:56	2
"	"	"	"	"	"	"	21.0	02:57	03:26	2
"	"	"	"	"	"	"	21.0	03 27	04:01	2
27650	"	"	"	"	"	"	21.0	04:02		3
	Focus Test									
15 cc 4 p 22 N										

Dome Temp. +65°F

Transparency Conditions Good

Focus 15.50

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01 42W	36 46	0-1	5:1	B8n	6-6-6	Set 2½ § Cn BA Seen 5 {8123 8133	strong
02 02W	"		"	"	6-6-6	" 7½ " " {8133 8143	"
00 10W	-14 00	0-1	6.43	B9	6-6-6	" 5 B8 B9 Prog Seen 7 {8147 8160	"
00 34W	-18 44	0-1	6.32	B8	6-6-6	" 5 " " " 7 {8161 8175	"
00 10 E	-02 32	0-1	6.3	B9e	6-6-6	" 5 B8 Prog. " 7 {8176 8188 8192	"
013 W	-1° 5'	0	6.26	B8.	6-6-6	" 5 B 8 B9 Prog. " 7 {8204 8200	"
0 8 W	-62 25	0	7	B2	6-6-6	Set 1 Eclipsing Binary AB. 7 {8218	l strong
0 32 W	"	0	"	"	6-6-6	Set 5 " " " {8219 8231	"
0 53 W	"	0	"	"	6-6-6	Set 8 " " {8232 8244	fine
1 22 W	"	0	"	"	6-6-6	Set 1 " 7 {8246 8258	"
1 51 W	"	0	"	"	6-6-6	Set 5 " " {8259 8271	"
2 27 W	"	0	"	"	6-6-6	Set 8 " " {8272 8284	"
2 52 W	"	0	"	"	6-	Set 5 " " 8285 8294	"
					20/16		

Overcast over eliding mirror fully closed in N.W.

Running out of IIaO.
Increase exposures 25% for 103aO

Date Friday July 31 / Aug 1/64 **Observer** HB - HS **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
27651	HD 139892	$15^h\ 35^s.6$	$+36°\ 5'$	I-25	IIaO-6	.008	23°C	20:42	21:29	4
	"	"	"	"	"	"	"	21:45	22:11	3
27652	MWC 310 ~~HD 172648~~	~~$19^h\ 00^m.5$~~	~~$+22°\ 11'$~~	"	"	"	"	22:29	00:31	1
27653	HD 202392	21 50.9	62 08	"	"	"		02:20	02:46	2
	"	"	"	"	"	"		02:47	03:15	1
							22.6	03:15	04:13	2

Dome Temp. 69°F

Transparency Conditions Scattered Ci

Focus 15.62 − .11 = 15.51

Dome Temp. ....

Clouds after Midnight

0030 2 0215 Transit w/ Ex. Mir.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS			Quality
2.13 W	+35° 46′	⊙	5.1	B8n	6-6.6	Set 2½	5 CBA	seros	8299 8309	strong
02.56 W	+36° 46′	0-1	"	"	6-6-6	Set 7½	"	seros	8313 8323	11
01.49 W	+23° 15′	0-1	~~7.5~~	~~B3e~~	6-66	Set 5	EXP MT NOT ZEROING SOME ~~Be Plot~~	Hers 7	8328 8343	l wk
		⊙	7.	B2	66-6	" 1	Ab B	#7	8408 8426	Comp
3 1H4M			"	"	18	" 5	" "		8429 50	Good
3 2.12 W					6-6-6	" 9	" "		8451 8471	Good

2 D.H Lost

Date MON/TUES, 3/4 AUG '64 **Observer** LV MCQ - HS **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P
27654	HD 158704	17h 25.6m	-26 11	I-25	II a0 b	.008	22.0	20 23	21:11	3
27655	HD 171957	18h 32m.4	-14°06′	"	"	"	22.5	21:19	22:13	4
27656	HD 175360	18h 49m.9	-23°18′	"	"	"	22.1	22:17	22 59	1
27657	HD 187691	19h 46m.2	+10°10′	"	"	"	22.2	23:08	23 22	2
27658	HD 208392	21h 50m.9	+62°08′	"		"		23:37	0002	3
	"	"	"	"	"	"	22.0	00:03	00 25	"
	"	"	"	"	"	"		0025	00 49	"
27659	"	"	"	"	"	"		0050	01 18	4
	"	"	"	"	"	"		0118	0210	"
	"	"	"	"	"	"	22.1	0210	0328	"
27659F	Focus	Test	OTB	"	103a0	"				1

Dome Temp. 72
Focus 15.49
Dome Temp.

Aurora at midnight +II 0100
0120 Thin Cloud.
0220 More Cloud

Transparency Conditions Fair. - Some Cirrus.
22:30 - Thin cloud over most of sky.
23:00 EXCELLENT.

Time I.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
11 3	0h 15m W	-26 13	0-1	5.9	B9	6-6-6	Set 5 B8-B9 Sens 7 {8474 8487	strong
13 4	0h 09m W	-14° 01′	0-1	6.43	B9	6-6-6	Set 5 B8-B9 Sens 7 {8489 8501	wk - plate loaded heavy
59 1	0h 39m W	-23 12	0-1	5.84	B8	6-6-6	Set 5 B8-B9 Clouds. Sens 7 {8502 8515	strong
22	0h 07m W	+10° 19′	0-1	5.9	F8	6-6-6	Set 5 STD. VEL. Sens 5 {8518 8523	fine
02	1h 17m E	+62° 27′	1	7	B2	6-6-6	Set 2 Ab. Ecl. Binary Sens 7 {8524 8536	fine
		"	1	"	"	6-6-6	Set 5 " " " Sen 7 {8536 8548	fine
	00 30 E	"	"	"	"	6-6-6	" 9 " " " " 8548 8560	strong
	00 01 E	"	1	"	"	6-6-6	" 1 " " " #7 8560 8572	fine
	00 51 W	"	0-1	"	"	6-6-6	" 5 " " " #7 8572 8587	fine
	02 18 W	"	0	"	"	6-12	" 9 CLOUDS!! " " " #7 8581 8598	wk
						25/20	" 5	

3 P.H. Loaded 1030

Date Tues/Wed, Aug 4/5, 1964 Observer Ab Re/ Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
27660	S Cor Bor A	$15^h 35^m.6$	$+36^\circ 58'$	I·25	103aO	long .008	+21°C	21:29	21:55	2
15 CC replen										

Dome Temp. 70°F

Transparency Conditions Poor; Thick haze, clouds till 9:20 PM

Focus 15.48

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
02 55 W	+36°	2-3	5.1	B8n	6-6-6	set 3; Ab Sp Bin. Clearing sens 5 {8595 / 8605	Strong
						set 7: Ab Sp. Bin. sens 5 {8605 — NO EXP	
						set 9 OTB 2 9/10 Clouds 21 5/6	OK
						2 Loaded PH 1030	

somethings wrong with the RA drive. Every 30sec or so, the star image [illegible] then the drive picks up and resets the star!? But sometimes it doesn't pick up! Seeing balanced? Hanging on a bit at the spectrograph seems to exercise it! (While taking 2 Cur Bur)

235 Echo I ; SW → E Meridian 20; 37 EST
Echo II ; ag 34 [illegible] 360° alt 21: 30 - 21 42 EST
Echo 3 W → E Meridian 22h 41m

Date Wed/Thurs, 1964 Aug 5/6 **Observer** Cn Ab – Hr **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27661	HD 139892 (SCrB A)	15h 35.6m	+36° 58'	I-25	103aO	.008 long	21.5°	20:25	20:53	3
								20:53"	21:13	3
27662	HD 171961	18h 32.4m	-23° 36'	"	"	.008 normal	"	21:21	21:39	2
27663	HD 175360	18h 49.9m	-23° 18'	"	"	"	"	22:02	22:50	1
27664	HD 208392	21h 50.9m	+62° 08'	"	"	"	"	22:57	23:34	2
"	"	"	"	"	"	"	"	23:35	00 17	"
"	"							00 19	00 47	
27665	"	"	"	"	"	"	21.9	00 48	01 12	3
	"	"	"	"	"	"		01 13	01 41	"
	"	"	"	"	"	"	21.7	01 41	02 30	"
27666	"	"	"	"	"	"		02 38	03 30	"
	Focus Test			I-25	IIIa-J					

Dome Temp. 65°F

Focus 15.60 − 0.11 = 15.49

Dome Temp. .....

Transparency Conditions Excellent except for occasional high thin cloud
Excellent after 21h.
0102 Begin Emacs Journey

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS			Quality
1h 55m W	+36° 47′	0-1	5.1	B8n	6-6-6	set 2	Ab Spec. Bin.	set 5 { 8616 8626 } (1)	strong
2h 16m W	"	"	5.1	B8n	6-6-6	set 5	"	set 5 { 8627 8639 } (2)	"
3h 04m W	−23° 32′	0	5.13	B9	6-6-6	set 5	B8-B9	Set 7 { 8641 8656 } 15	fine
3h 37m W	−23° 11′	0-1	5.84	B8	6-6-6	Set 5	B8-B9	Set 7 { 8657 8672 } 15	"
1h 37m E	+62° 24′	0-1	7	B2	6-6-6	set 2	Spec. Bin (Ab)	Set 7 { 8675 8688 } 15	good
∞ 55 E	"	"	"	"	6-6-6	Set 5	"	" { 8689 8704 } 15	"
					7-7-7	" 9		#7 8705 8720	"
3° 01 W	"	D	"	"	7-7-7	" 2	"	#7 8721 8736	fine
3h 21 W		D	"	"	7-7-7	" 5		" 8737 8752	good
3h 42 W		D	"	"	7-7-7	" 9		" 8752 8767	fine
	"				7-7-7	" 2	"	" 8768 8783	fine
					25/20	" 7			OK

4P.H Loaded 103.0

Date Thurs / Fri Aug 6-7/64 Observer HL Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
~~27667~~	~~HD 208392~~	~~21h 50m.9~~	~~+62° 08'~~	~~I-2'~~	~~103a-O~~	~~.008~~	~~21.3°C~~	~~00:28~~		1
27666F	FOCUS TEST									

Dome Temp. 66°F

Focus 15.60 − .11 = 15.49

Dome Temp. .....

Transparency Conditions 2300 EST good, scattered Ci
0030 clouds building up Ac

Closing 0110

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
	+62° 27	0	7	B2	G-	~~set 2 Ab Spec Bin runs 7~~ {8795	X
						set 7	
						3PH loaded	

Date FRIDAY/SATURDAY, AUG 7/8 **Observer** FI - mcl **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27667	HD 208392	21 50.9	162° 08'	I-25	103a-O	0.003	26° 0	23:36	00:54	2
	"	"	"	"	"	"	25.7	00:55	02:27	"
	"	"	"	"	"	"	25.7	02:31	03 25	"
27668	"	"	"	"	"	"	25.6	0326	04 06	3
	FOCUS TEST	OTB								

ISEE rotation

Dome Temp. 72° F

Focus 15.67 − 0.11 = 15.56

Dome Temp. 63° F

Transparency Conditions Very Good.

Almost all "first half" clouded out.
Some wind but not troublesome
OD: 30 − 08 30 vonnd's observers

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0h 09m E	+62° 25′	0-1	7	B2	7-7-7	Set 1 Ab-Eclipsing Binary Sens 7 {8808 8823	15 dark
1h 24m W	"	0	"	"	7-7-7	Set 4 Clouds! " " " 7 {8824 8839	15 "
2h 22m W	"	0	"	"	7-7-7	Set 7 " " " " 7 {8841 8856	15 good
	"	0-1	"	"	7-14	Set 2 Clouded out " {8857 8859	wk
					25/20		OK

1 PH Loaded in Iris

Aug 8 120 visitors. showed "The Universe" mc, cl, fl, sm

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Wed/Thurs Aug 12/5 1964

Date ~~Aug. 8, 64 Sat/Sun~~ Observer Cr – Hb VF Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27669	HD 139892	15 35.6	+36 58	1-2	103aO	long .008	18°C	21:07	21:33	4
							18.2C	21:34	22:07	4
	Four Test									
27670	HD 208392	21 50.9	+62 08	.11	103aO	normal .008		22:51	23:33	3
	"	"	"	"	"	"		23:34	00:26	"
	"	"	"	"	"	"	17.9°C	00:27	01:10	"

Dome Temp. 56°F

Focus 15.55 - .11 = 15.44

Dome Temp. 53°F

Transparency Conditions cleared ~ 20h 30m
cloud low in NE
22h cloud ~ S, N + NE
1h completely overcast (patchy thin cloud over sky)

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
3:04W	+36 46	0	5.1	B8n	6-6-6	set 2 Ab Sp Bin set 5 8959 8969 (10)	stand
03 27W		0			6-6-6 25/20	set 5 1 cloud, set 5 8969 8981 (12) clouds from 2h → 2h 45m	"
1 11E	+62 26	0	7	B2	6-6-6	set 2 Ab Ecl. Bin set 7 8955 9000	bad
0 13E	"	"		"	6-6-6	set 5 " " {9000 9013	"
01.03W	"	"	"	"	6-6-6	set 8 " " {9016 9025	"

4 pH loaded

Date Thurs Aug. 13-14/64 Observer L-McC Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	I
27671	H.D 177648	19 00.5	23 11	I-25	103aO	set .008	15.8	20 38 31	21 40	1
27672	MWC 320	19 41.3	05 44	"	"	"	15.7	21 45 2	19 02:23	2
27673	HD 224559	23h 53.8	+45°52′	"	"	"	15.5	02 33 12	02 57	3
27674	HD 6343	00 59.4	+65°26′	"	"	"		03 07 17	03 41	4
27675	HD 9105	01 24.6	+62 51	"	"	"	15.6	03 46 35	04 36	1
	FOCUS TEST		OTB							

Marked 27673

Dome Temp. 57°F

Focus 15.41

Dome Temp. 49°F

Transparency Conditions Good

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.		REMARKS		Quality
0 11E	23 15	0-1	7.5	B3e	6-6-6		Be Plog	Sens 7 {9031 9046	
3h 52mW	05 49	0-1	8.5	B5ne	6-6-7		" "	Sens 8 {9047 9084	37 Fair
0h 13mW	+46° 13′	1	6.5	B3ne	7-7-7	Set 5	" "	Sens 7 {9087 9102	(15) fair
0h 10mE	+65° 46′	1	7.1	B5ep	7-7-7	Set 5	" "	Sens 7 {9103 9118	15
0h 21mW	+63° 08′	1-2	7.5	B5e	7-7-7	Set 5	" "	Sens 7 {9119 9134	18 fair
					25/20				

2 P.H Loaded.

Date Fri/Sat Aug 14-15/64 **Observer** Mt : RH **Julian Day** .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P
27676	HD 171957	18h 32.4	−14° 06′	I·25	103a0	set .008	16.5	20:18 42	21:42	2
27677	AD 208392	21h 50.9	+62 08	"	"	.008	16.6	22:08 13	22:34	3
"	"	"	"	"	"	"	"	22:34 14½	23:05	"
"	"	"	"	"	"	"	"	23:05 21½	23:48	1
27678	"	"	"	"	"	"	"	23:51 19	00:29	4
"	"	"	"	"	"	"	"	00:30 25	01:20	"
"	"	"	"	"	"	"	"	01:21 20	02:01	"
27679	"	"	"	"	"	"	"	02:04 15	02:40	1
"	"	"	"	"	"	"	"	02:42 19	03:20	"
"	"	"	"	"	"	"	"	03:22 17	03:56	"
27680	"	"	"	"	"	"	"	03:57 21	04:31	2
	Focus	Set								

Dome Temp. 62°F

Focus 15.42

Dome Temp. 55°F

Transparency Conditions Excellent

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 23W	-14° 02'	1	6.43	B9	7-7-7	ref 5 B8-B9 seq 6 {9143 9149	
2.04 E	+62 25	1-2	7	B2	7-7-7	ref 2 Ab Eclipsing Binary seq 7 {9150 9165	
1 30 E	"	"	"	"	7-7-7	ref 5 " seq 7 {9166 9181	
0 47E	"	1	"	"	7-7-7	ref 8 " seq 7 {9181 9196	
0:8 E	"	1-2	"	"	7-7-7	ref 2 seq 7 {9198 9213 9214	
0:44W	"	1	"	"	7-7-7	Set 5 " Seq 7. {9229 9230	
01 25W	"	0	"	"	7-7-7	Set 8 " Seq 7. {9245	
02:05W	"	1	"	"	7:7-7	Set 2 " seq 7 {9246 9261	
02:45W	"	1	"	"	7-7-7	Set 5 " {9262 9277	
03:20W	"	1	"	"	7-7-7	Set 8 " {9278 9293	
04:03W	"	1	"	"	7 7 7	Set 2 " " {9294 9309	
					20/6	Set 6	
						1 PH loaded 10:00	

Sat Visitors: ~100 Showed M13 to 1st Group
" " and M57 (Ring Neb.) to 2nd Group (~12 people)
Fl, Mt, Cc.

Date Sat-Sund Aug 15-16 **Observer** Re **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
27681	HD 202109	21 08.7	+29° 49	25'	103aO	.008	+18°	23 50	0003	1
								0003	0027	
27681F	OTB	17/22		CK						

14CC replay

Dome Temp. +60°F

Focus 15.49

Dome Temp.

Transparency Conditions Good; few small alto Cumulus then compl. cloudy (0006 –

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0012W	+30°09		9.9	G8d	10-10	set 2 YOSS' sens 6 {9310 9320 (10)	
0030					21	set 5 much more clouds! compl. blocked from 0006 till ∝ Close up 0040 I loaded PH (1030) {9320 9321 (1)!	

Date Mon. Tues. 15th Aug 17/18 **Observer** MdL **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27682	HD 139892 SC+BA	15h 35.6m	+36° 58′	I-25	103a-O	set .008 long	22.0°C	20:47	22:00±	3

Dome Temp. 66°F

Focus 15.61 − .11 = 15.50

Dome Temp.

Transparency Conditions Some altocumulus drifting over

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
—	+36° 46′	0	5.1	B8n	6-12	Set 2 closed at about 22:00 closed up Used mid-chord in both (5) {9365 9370 2nd H heard 'OJ' = 0	l strong

Date Aug 18-19/64 Tues-Wed **Observer** HB - RM **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27683	MWC 312 HD 180398	19h 11m 3	+12° 56'	[25'	103aO	.008	18°C	22:56	00:53	4
27684	MWC 409 HD 225095	23 58.3	+58 00	"	"	"	17.6°C	01:11	02:47	1
27685	YP 478	01 31.9	48° 07'	"	"	"	18°C	03:00	03:02.5	2
	"	"	"	"	"	"	"	03:06	03:10.5	"
	"	"	"	"	"	"	"	03:12	03:17	"
27686	HD 208392	21 50.9	62° 8'	"	"	"	18.	03:40	04:44	3
	Focus test							28½		

Dome Temp. 59°F

Transparency Conditions 22nd FAST clear

Focus 15.55 − .11 = 15.44

Dome Temp. 58°F

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
03:12 W	+13 02	0	7.7	B3 Ne	6-15	SET 5 Be PROG SENS 7 {9373 9378	Lots
						Cannot keep star in visible eyepiece + to far west.	
00:19 W	+55° 19'	0	7.6	B1c	7.7.7	Set 5 Be Prog. Sens 7. {9350 9358	fair
01:00 E	48° 26'	1	3.77	K3 III	10-11	Set 2 M1 Std 50% Sens 5 {9406 9411	poor
00 52 E	"	"	"	"	10-11	Set 5 " 100% " {9419 9429	fair
00 57 E	"	"	"	"	10-11	Set 8 " 150% " {9432 9447	strays
04 25 W	62° 28'	0	7	B2	7.7	Set 2. Ad. Edge Bin. Sens 7 {9419 9462	fair OK
					20/16	Set 8.	
						2PH loaded 103 90	

Date Wed. Thurs Aug 19-20/44 Observer HB Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27687	MWC 8 HD 4180	00h 39m 2	+47 44	I-25	103a O	.008	18.6c	01:03	01:09	I
"	"	"	"	"	"	"	"	01:10	01:13	"
"	"	"	"	"	"	"	"	01:15	01 44	"
27687F	Focus Test									
								98		
	15cc replen									

Dome Temp. 64°F

Focus 15.56 − .11 = 15.45

Dome Temp. 58°F

Transparency Conditions 01.00 Ac

01.16 thickening Ac

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01:56E	−18°05′	1-2	4.7	B4 no?	6-66	set 2 Be Prog 100% rems {9464 9469 9472	fair
01.52	"	"	"	"	6-66	set 5 " 50% {9474	wk
01.21	"	1	"	"	6-66	set 8 " (200%) " {9477 9483	2 str-f
						set 5′ 16/20 sec.	ok

4PH loaded

Date Thurs Aug 20/21-64 Observer L - RM Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27688	HD 139892	15 35.6	+36 58'	I-25	103aO	L .008	18.0	20:21	20:35	1
"	"	"	"	"	"	"	"	20:37	20:55	"
27689	HD 183143	19 23.0	+18° 05'	"	"	normal .008	"	21:07	23.13	2
27690	HD 212943	22 22.8	+04° 12'	"	"	"	18.0	01:00	01:38	3
27691	HD 208392	21 50.9	+62° 8'	"	"	"	"	01:50 25	02:41	4
"	"	"	"		"	"	"	02:42 25	03:32	"
"	"	"	"	"	"	"	"	03:34 20	04:14	"
27692	HD 9138	01 24.9	05° 38'	"	"	"	17.9c	04:22 15	04:37	1
	Focus test.									

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Dome Temp. 62°F
Focus 15.44
Dome Temp. 56°F

Transparency Conditions Hazy Light Clouds

01:30 Haze covering nearly all of sky

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS			Quality
2h37m W	36 45	2-1	5.1	B8n	4-8-6	Set 2	S Ca BA	Set 5 {9497 9507}	10 strong
2h57m W	"	"	"	"	6-6-6	Set 7	"	Set 5 {9509 9519}	10 "
1 28 W	18 14	2-1	6.9	B9.5e	6-6-6	Set 5	Be programme	Set 7 {9520 9550}	30 good
0 48 W	04:30	1	5.9	K0	7-7-7	Set 5	Std Vel Stars.	Seq 6 {9554 9564 9566}	10 fine
02:28 W	+62° 27'	1	7	B2	7-7-7	Set 2.	Ab Ecl. Binary;	Seq 7 {9581 9582 9597 9600}	15 good
03:19 W	"	"	"	"	7-7-7	Set 5	"	Seq 7 {9615 9619 9639}	15 "
4:02 W	"	"	"	"	7-7-7	Set 8	"		
00:50 W	+05°59'		6.2	K+	7-7-7	Set 5	Std Vel. Stars		20
					20/16	Set 9			

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Sat Aug. 22, 1964
Visitors ~150 Rain – Showed "Universe" & 74" to both groups. Fl, Mt, Ck.

Date ..... **Observer** ..... **Julian Day** .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I

Dome Temp. .....

Focus .....

Dome Temp. .....

Transparency Conditions .....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality

Date Sun/Mon Aug 23/24, '64 Observer MT - RM. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
27693	HD 18769	19h 46.2m	+10° 10'	I-23	103aO	set .008.	21.5°C	22h:24	22:55	2
27694	HD 203638	21 18.4	-21 16	"	"	.005	21.2°C	23:05	00:29	3
27695	HD 9138	01 24.9	+05° 30'	"	"	"	21.0	01:34	01:44	4
27696	HD 22484	03 31.8	+00° 05'	"	"	"	21.0	02:05	02:19	1
27696T		Focus test								

15 CC Kepler

Dome Temp. 64 °F
Focus 15.49
Dome Temp. 60 °F

Transparency Conditions Clouds, clearing about 22h E.T. Some haze + cloud until about 23h

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
55 2h 58m W	+10° 19'	1	5.8	F8	7-7-7	sets Standard Velocity sens 6 {9651 9658	
27 0 58 W	-21° 00'	1	5.5	gK2	7-7-7	sets " sens 6 {9662 9672	
44 0 2.1 E	+06° 00'	2	6.2	K1	7-7-7	Sets " Sens 7 {9674 9694 20	
19 04.37 E	+00° 17'	1	5.2	Fg	7-7-7	Sets " Sens 6 {9705 9711 6	
					20/6	Sets	OK

01:10 Clouded over completely.
01:30 Cleared up again
02:00 Clouds drifting by.
02:20 almost completely overcast.
00:35 - 0055 a brief pause to help the first half observer start his horseless carriage!

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Date 1965 Aug 24/25 Mon Tue Observer AL Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.
27697	HD 139892	15h 35.6m	+36° 58'	I-25	103a-O	.008 set	+22°C	19 50	20 05	3
"	"	"	"	"	"	"	"	20 07.6	20 19½	"
27698	HD 171957	18 32.1	−11 06	"	"	"	+22°C	20 39.2	21 35	4
27699	HD 192276	20 09.0	+17 26	"	"	"	"	21 45.1	22 19	1
27700	HD 202349	21 10.1	+37 21	"	"	"	+21.5	22 39.4	23 27	2
27701	HD 203638	21 16.9	−21 16	"	"	"	"	23 45.2	00 26	3

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Dome Temp. 68°F

Focus 15.61 − .11 = 15.50

Dome Temp.

Transparency Conditions

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2h 12m W	+36° 45′	1-2	5.1	B5 n	6-6-6	Set 2 being set	10 Strong
2h 27m W	"	1-2	"	"	6-6-6	Set 7 "	10 "
55 W	−140 2′	1	6.43	B9	6-7-8	Set 6 [illegible] regular set	16 fine
05 W	+47 38	1	6.53	B8	6-7-8	Set 5 (")	16 good
10 W	+37 37	2	7.2	[illegible]	7-7-7	Set 5 (OB p.9)	16 "
00 W	−21 00	1	5.1	g[illegible]	7-7-7	Set 5 (Std. rd.)	16 [illegible]
						set on next star but Dias in the way	
						Second Half Obs. did not show up.	
						Closed 01:00	
						4 Pl. H. loaded 1030	

Date Aug 25/26/64 **Observer** R.M. - HV **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27702	HD 208392	21 50.9	+62° 08'	I-25	103aO	Set .008	21.0C	22:02	22:48	1
"	"	"	"	"	"	"	"	22:50	23:40	"
"	"	"	"	"	"	"	"	23:44	00 50	"
27703	"	"	"	"	"	"		00 51	01 55	2
"	"							01 56	02 42	"
	"						21.0°	02 46	03 52	

Nothing on plates (one of the Pleiades not developed properly (Not in developer)

Dome Temp. 63°F

Focus 15.48

Dome Temp.

Transparency Conditions Thin Cloud till 00h50

Ex. Mtr. Not Working Well

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01 05E	+62° 27'	1	7	B2	7-7-7	~~Set~~ 2. Ab. Ecl. Bi. Seq 7 {9863 / 9878} 15	
0:13 E	"	0	"	"	7-7-7	~~Set~~ 5 " " {9879 / 9894} 15	
00 58W	"	0	"	"	7-7-7	~~Set~~ 8 " " {9896 / 9912} 16	
0202W	"	0	"	"	7-7-7	" 2 " " 9913 / 9928 15	
0250W		0			7-7-7	" 5 " " 9929 / 9947 18	
0403W		0			7-7-7	" 9 #8 9951 / 0006 55	
						1 ~~Set~~ Ecl.	

Date Wed-Thurs August 26/27 Observer Re / Hb Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27702	HD 171861	$18^h 32^m.4$	$-23° 36'$	I25"	103aO	.008	21°C	19:53	20:30	4
27703	HD 175360	$18^h 49^m.9$	$-23° 18'$	I25"	103aO	.008	21°C	20:53	21:30	3
27704	HD 181358	$19^h 15^m.8$	$-19° 25'$	I25"	103aO	.008	21°C	21:33	22:05	2
27705	HD 202109	$21^h 08^m.7$	$+29° 49'$	I25"	103aO	.008	21°C	22:10	22:22	1
27706	HD 208392	$21^h 50^m.9$	$+62° 08$	I25"	103aO	.008	21°C	22:47	23:17	4
do					"	"	"	23:18	00:03	"
"					"	"	"	00:05	01:05	"
27707	HR 515 HD [illegible]	[illegible]	[illegible]	I-25	103aO	.008		01:17	01:21	3
								01:25	01:33	"
27708	HR 449 HD 9612	$01^h 29^m.7$	$+73° 45'$	"	"	"	"	02:08	02:27	1
27709	HR 536 HD 11291	$01^h 45^m.6$	$+50° 1[illegible]$	"	"	"	"	02:37	02:50	4
				"	"	"	"	02:52	03:07	"

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Dome Temp. 70°F

Focus 13.48

Dome Temp.

Transparency Conditions Cirrus then (21hr) clear
21:15 Perfect

CONTINUED

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0002E	-23°32'	0	5.7	B9	7-7-7	B8-B9 set 8 sens 6 { 29 36 (2 extra counts) ⑦	latency
0045W	-23°12'	0	5.8	B8	7-7-7	B8-B9 sets (wrong #) set 8 (right!) sens 6 { 61 68 (See NB) ⑦	fine
0055W	-19°18'	0	6.7	B8	7-7-7	B8-B9 set 5 sens 6 { 72 80 ⑧	Comp Wk l. weak
0045E	+30°04	1	4.4	G8 II	11-10 10-10 -21-	YOSS' sens 6 set 2 5 8 ⑩ (31-31) 2 minute exp. 1 min exp	comp. weak variable - strong - poor
0032E	+62°25'	2	7.	B2	7-7-7	Ab. Ecl. Bin. set 2 30 min exp	comp wk good
0014W	"	1-2	"	"	7-7-7	Ab. Ecl. Bin. set 5 45 min exp	fine
0116W	"	2-3	"	"	7-7-7	Ab. Ecl. Bin. set 3 60 min exp	l. strong
0035E	+61°05'	2-3	5.85	B9	7-7-7	sets B8-B9 sens 6 { 0132 0135	l. strong
0025E	"	"	"	"	7-7-7	set 8 sens 6 { 0140 0150	strong
0102E	+74°05'	2	6.37	B8	7-7-7	set 5 B8-B9 sens 6 { 0154 0161	poor l. strong
0055E	+50°34'	2	5.62	B9	7-7-7	set 3 B8-B9 sens 6 { 0163 0170	l. strong
0038E	"	1-2	"	"	7-7-7	set 7 " sens 6 { 0177? 0155?	l. strong

NB: 21:30 EXPMETER not going back to zero but to .5 after a while - then slowly drifting toward zero. Should adjust exposures for new meter in future!

00:47 Exp meter appears to be working now - at first erratic
02:10 Exp meter acting up again (as above)
03:1[illegible] " will not reset at all.

CONTINUED

Date ..... **Observer** HB ..... **Julian Day** .....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27710	HR 561 +HD 11857	$01^h\ 5^m.4$	+61° 12′	I-25	103aD	.008	21°C	03:22	03:50	2
27711	HR 785 HD 16727	$02^h\ 35^m.8$	+54° 41	"	"	"	"	04:04	04:25	4
	FOCUS TEST									

23 CC replans

Comparisons generally wk.

Dome Temp. .....

Focus .....

Dome Temp. .....

Transparency Conditions EXCELLENT

Time T.	Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
5: 2	0001 E	+61° 31'	2-3	600	B8	7-7-7	set 3 B8-B9 Sens 6 ~~8/1~~ ?	comp. 2 w. strong
E'	0011 E	+54° 55'	2-3	5.61	B8	7-	set 3 B8-B9	comp. w. strong
							set 7 20/25	OK
							3pH loaded	

Date Thurs Aug 27-28/64 Observer L—H— Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27712	H.D. 177863	19 01.3	-18 54	I-25	E1034O	set .008		20 -15 36	21 27	1
								36		

Dome Temp. 68°F
Focus 15.48
Dome Temp.

Transparency Conditions

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0h 30m W	-18 47	0	6.32	B8	6-6-6	B8 - B9 Prog Iris 7 {0652 0667 Exposure Meter is Kaput. Clouds + Haze after Midnight Closed at 0130	Ltransp

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180 Inches - Shepard Ring Nebula (M57) Cn n. 5 Ck

Date Aug 29-30/64 **Observer** — Hr **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	25.4° Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27713	HD 213014	22 23.4	+16 46	I-25	103a O	.016	25.2	23 46 37	0100	2
27714	HD 12302 MWC 23	01 55.6	+59 12	"	"	.008	25.1	0122 32	0228	3
27715	HD 13661 MWC 29	02 08.1	54 04	"	"	"	"	0242 58	0428	4
	Focus Test on TB									

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Dome Temp. +73°F

Transparency Conditions GOOD

Focus 15.56

Dome Temp. .....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
00h50W	+1706	00	8.5	G8	3-4-4	Set 5 STD. VAL. #8 1028 1068	f. weak
0116E	59 30	0	8.2	B3e	7-7-7	" 5 Be Bin. #8 1074 1113	L weak poor guid
0032W	54 18	1-2	8.6	B3nc	7-7-7	" 5 " #8 1119 1167	1 str.
					20/15	" 9	
						3 p.h. +7 1030	

Date Mon Tue 1864 Aug 31-Sep 1 Observer MR CR RM. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27716	HD 171391	18h 25m 5s	-11° 03'	I-25	103aO	.008	22.5	19h 35m 3s	19h 46m	3
27717	HD 171961	18 32.4	-23 36	I-25	103aO	.008	22.5	19 52	20h 20m	2
27718	HD 175360	18 49.9	-23° 18	I-25	103aO	.008	23.0	20 26m 15s	20 57m	1
27719	HD 198626	20 11 6.5	+30° 32'	I-25	IIaO	.008	23.0	21h 10m 38s	22h 06m	4
27720	HD 199154	20 50 2	+17° 33'	I-25	IIaO	.008	11	22 16 36s	23h 29m	1
27721	HD 200407	20 58 2	+13° 17'	I-25	IIaO	.008	"	23h 36m 33s	00:42	2
27722	HD 212943	22 22.8	+04° 12'	"	"	"	22.6°	00:52	01:19	3
27723	HD 222574	23 36.2	+57° 17'	"	"	"	22.6°	01:34	02:43	4
27724	HD 1321	00 19.6	+51° 45'	"	"	"	"	02:53	03.42	1
27725	HD 16555	02 37.1	+42° 07'	"	"	"	"	03:48	04:34	2

Focus test

45H

Dome Temp. 66°F

Focus 15.61 - 11 = 15.50

Dome Temp. 60° F

Transparency Conditions clearing at sunset

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS				Quality
0:25 E	-11° 00'	1	5.2	g67	7-7-7	Set 5	Std. Vel.	Sens 7	{1166 1182}	16 time guid.
0 08 E	-23° 32'	1	5.23	B9	7-7-7	Set 5	B8-B9	"	{1184 1196}	12 Fine
0: 25 W	-23° 11'	1-	5.24	B8	7-7-7	Set 5	"	"	{1098 1218}	13 strong
0: 18 W	+30° 18'	1-	6.9	Am	7-7-7	Set 5	Am Stars	Sens 8	{1224 1269}	14 S strong weak comp very
1h 01 W	+48° 07'	1	7.3	Am	7-7-7	Set 5	" "	Sens 8	1271 1219	14 S l. strong very weak comp
1.06 W.	+44° 02'	1	6.9	Am	7-7-7	Set 5	" {may have very faint comp}	Sens 8	1321 1366	14 S strong very weak comp
1:17 W	+04° 29'	1	5.9	K0	7-7-7	Set 5	Std Vel.	Sens 7	{1371 1387}	16 strong very weak comp
1 25 W	-57° 38'	1	7.5	Am	7-7-7	Set 5	Am Stars	Sens 8	{1329 1434}	15 strong very weak comp
1:22 W	-55° 05'	1	6.6	A0	7-7-7	Set 5	"	Sens 8	{1436 1[illegible]}	14 strong very very weak comp
1: 15 W	+43° 20'	1	6.7	Am	7-7-7	Set 5	"	Sens 8	{1435 1530}	14 l. strong very very weak comp.
					20/16. Sct 9.					

03:49 Clouds 04:30 Quite cloudy

Bulb in Visitor's eyepiece has burned out

Date Tue-Wed Sept 1-2 1964 Observer MCC - RM. Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P
27726	HD 178075	$19^h 02.1^m$	$-24° 49'$	I-25	IIaO	.008	+21.3C	20:03	20 55	3
27727	HD 187691	$19^h 46.2^m$	$+10° 10'$	"	"	"	"	21 06	21 20	4
27728	HD 198626	$20^h 46.5^m$	$+30° 32'$	"	"	"	"	21 34	22 42	2
27729	HD 199154	$20^h 50.2^m$	$+47 53'$	"	"	"	"	22 50	00:27	3
27730	HD 200407	20 58.2	$+43° 47'$	"	"	"	+21.0C	00:42	01:57	1
27731	HD 222514	23 32.2	$+57° 17'$	"	"	"	+21.0C	02:08	03:08	2
27732	HD 4321	00 40.6	$+54° 45'$	"	"	"	+21.0C	03:14	04:02	3
27733	HD 16855	02 37.1	$+43° 07'$	"	"	"	21.0C	04:06	04:48	4
	Focus Test									

Dome Temp. 65°F

Focus 15.49

Dome Temp. 55°F

Transparency Conditions excellent

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0h 17m W	−24° 42′	0	6.2	B9	6-6-6	Set 5 B8-B9 Sens 8 {1551 1581}	35
0h 02m E	+10° 20′	0	5.8	F8	6-6-6	Set 5 Std. Vel Sens 7 {1587 1599}	(12)
0h 20m W	+30° 48′	0-1	6.9	Am	6-6-6	Set 5 Am Stars Sens 7 {1600 1618}	19
02.03 W	+48° 08′	1	7.3	Am	6-6-6	Set 5 " " Sens 8 {1619 1664}	45
03.24 W	+44.03′	1	6.9	Am	6-6-6	Set 5 " " Sens 8 {1669 1714}	45
01:56 W	+57° 39′	1	7.5	Am	6-6-6	Set 5 " " Sens 8 {1719 1764}	45
01:45 W	+55° 05′	1	6.6	Am	6-6-6	Set 5 " " Sens 7 {1770 1815}	45
0 41 W	+43° 21′	1	6.7	Am	6-6-6	Set 5 " " Sens 8 {1819 1863}	45
					20/16	Set 9.	OK
04:45 Clouds.							
						1 Ph Loaded.	

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Corrections to clocks { MC +2.2
SC +1.6.

Date Wed-Thurs, Sept 2-3 **Observer** Mt - mcl **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27734	HD 178075	19h 02.1	-24° 49'	I-25	IIaob	set .008	21.5	19:40	20.23	1
27735	HD 184467	19h 29m.5	+58° 24'	I-25	IIaob	.008	21.5	20:42	21.21	2
27736	HD 190537	20h 00m.3	+30° 57'	I-25	IIaob	"	"	21:32	22:08	3
27737	HD 207990	21h 48m.1	+61 09'	I-25	"	"	"	22.29	23:18	4
27738	HD 212943	22 22.8	+04 12	"	"	"	"	23.39	00:03	1
27739	HD 224890	23h 56m.5	+73° 03'	"	"	"	21.6	00 58	01 30	2
27740	HD 225093	23h 58m.3	+72° 36'	"	"	"	"	01:39	02 27	3
27741	HD 10425	1h 36m.6	+60 03	"	"	"	"	02:40	02:50	4
27742	HD 225289	23h 59.9	+60 46	"	"	"	"	03 02	03:12	1
27743	HD 20017	03h 07.9	+48 19	"	"	"	"	03:26	04:54	2
	FOCUS TEST									
27744										

Dome Temp. 69°
Focus 15.49
Dome Temp. 60°

Transparency Conditions somehaze clouds in north

Should have been 40 counts! & goofed.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	0400 - hazy	Quality
00 11 E	-24° 42'	1	6.2	B9	6-6-6	set 5 B8 - B9 program	sens 6	1856, 1861
00.24W	+58° 29'	2	7.5	K5	6-6-6	set 5 Std. Vel.	sens 8	1863, 1873
00:35W	+31° 09'	2-3	6.9	Am	6-6-6	set 5 Am stars unusual binary; brightest component taken	sens 8	1877, 1927
00:00	+61 26	1	7.2	Am	6-6-6	set 5 Am stars	sens 8	1933, 1964
0h 08m W	+4° 30'	2	5.9	K0	6-6-6	set 5 Std. Vel.	sens 6	1971, 1979
0h 02m W	+73° 22'	1-2	6.8	Am	6-6-6	Set 5 Am Stars	Sens 7	1987, 2005 (18)
0h 58m W	+72° 56'	2	7.8	Am	6-6-6	Set 5 " "	Sens 8	2007, 2052 (45)
0h 18m E	+60° 20'	2	5.73	B9	6-6-6	Set 5 B8-B9 Prog.	Sens 5	2059, 2064 (5)
1h 43m E	+61° 06'	2	5.85	B9	6-6-6	Set 5 " " "	Sens 5	2066, 2071 (5)
0h 14m W	+48° 32'	2-3	7.9	B9ne	6-6-6	Set 5 Be Prog.	Sens 8	2073, 2110 (37)
					20/16			

Slow motion Dec. Button is broken.

4 PH loaded.

Date Sept. 4-5, Fri-Sat 1954 **Observer** FL – HV **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.
27741	H.D. 203633	21h 18m.4	-21° 16′	I-25	IIaOblkd	0.008	25°	20:45	22:17	1
27745	H.D. 209819	22 01.0	-14 21	I-25	IIaOblkd	0.008	26°	22:39	22:53	2
27746	H.D. 215242	22 36.7	+16 38	I-25	IIaOblkd	0.008	26°	23:19	23:56	3
27747	H.D. 216608	22 49.2	+44° 12′	I-25	IIaOblkd	0.008	26°	00:03	00 20	4
27748	" 222407	23 35.2	+63 10	"	"	"	25.7	00 40	01 38	1
27749	" 221671	23 29.0	59 29	"	"	"	25.6	01 47	04 21	—
	Focus Test		O.T. B	"	"	"				

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Strange multicoloured fireballs seen in south!! Azimuth 179° Elevation 0° (11 p.m. E.S.T.)

Dome Temp. 72° F

Focus 15.67 - 0.11 = 15.56

Dome Temp.

Transparency Conditions Good - Excellent
Very Windy
0030 Slit filthy, cleaned.
0330 V. THIN CLOUD

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
00.26 E	-21° 00′	0	5.5	gK2	6-6-6	Set 5 STANDARD VELOCITY Some haze at this low dec. Sens 7 {2118 2134	
00:32 E	-14° 03′	0	4.3	B8	6-6-6	Set 5 B8-B9 PROGRAM | GUIDED IN BLUE | Sens 5 {2136 2141	
Set on H.D. 201990 but could not resolve components.							
00:06 E	+46° 57′	0-1	6.4	Am	6-6-6	Set 5 Am STAR Exposed as G star Sens 6 {2144 2152	
00 07 W	+44° 32	0	5.6	Am	6-6-6	Set 5 " Sens 6 {2157 2161	
00 39 W	+63 31	00	6.9	"	6-6-6	" 5 " #8 2163 2203	
0330 W	59 49	00	7.41	Ap	6-6-6	" 5 Misc. Pec. * #8 2205 2245	
					20/15	" 9	
						2 P.H. LOADED	

Slow motion Dec. Set not working
Trouble with hand control Dec Set (clean tube out & oil)

Sat. Night Visitors ~120 Showed M13 to first group
" M57 " second "
Fl, MCl, Dm

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Date Sept 5/6, Sat/Sun 1964 **Observer** mcl - HL **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.
27750	HD 209819	22h 01.0	−14° 21′	I-25	IIaOB	.008	17.5	22:17	22:25	4
27751	HD 187691	19h 46.2	+10° 10′	"	"	"	"	22:38	22:54	3
27752	HD 223311	23h 43.4	−6 56	"	"	"	"	23:04	00:27	1
27753	HD 224890	23h 56m.5	+73° 03′	"	"	"	"	00:46	01:14	4
27754	HD 225093	23h 55m.3	+72° 36′	"	"	"	"	01:24	02:40	2
27755	HR 491 HD 10425	1h 36m.6	+60° 03′	"	"	"	"	02:52	03:10	3
27756	HR 760 HD 16219	2h 31m.1	+35° 27′	"	"	"	"	03:21	03:41	2
27757	HR 1144 HD 23324	3h 35m.2	+24° 32′	"	"	"	"	03:52	04:03	1
27758	HR 1146 HD 23363	3h 35m.5	−01° 29′	"	"	"	"	04:14	04:24	4
27759	HR 1185 HD 22950	3h 44m.0	+21° 57′	"	"	"	"	04:32	04:45	3
27760	HR 1297 HD 26571	4h 07m.0	+22° 04′	"	"	"	"	04:55	05:05	2
	FOCUS TEST.									

Dome Temp. 55°

Focus 15.55 - .11 = 15.44

Dome Temp. 50°F

Transparency Conditions excellent (0000)
0145: light scattered Ci in south
0200 excellent

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS		Quality
0h 56m E	−14° 02′	0-1	4.3	B8	6-6-6	Set 5	B8-B9 Prog. Sens 5 {2250 2255	5)
1h 47m W	+10° 18′	1	5.8	F8	6-6-6	Set 5	STD VEL. Sens 5 {2260 2265	5)
0h 36m E	−6° 35′	0	6.3	gK4	6-6-6	Set 5	" " Sens 7 {2266 2282	5)
0h 02 E	+73° 23′	0	6.8	Am	6-6-6	Set 6	Am Stars Sens 7 {2299	5)
01 12 W	+72° 56′	0	7.8	Am	6-6-6	Set 5	" Sens 8 {2301 2341	5)
0 14 W	+60° 19′	0	5.73	B9	6-6-6	Set. 3	B8-B9 Sens 6 {2342 2347	5)
00 10 E	+39° 44′	0-1	6.35	B8	6-6-6	Set 5	" Sens 6 {2347 2353	5)
00 5 E	+24° 42′	0	5.53	B8	6-6-6	Set. 5	" Sens 6 {2353 2359	5)
00 3 4 E	−01° 17′ 5	0	5.04	B8	6-6-6	Set 5	" Sens 5 {2361 2364	5)
00 18 E	+22° 08′	0	5.90	B9	6-6-6	Set 5	" Sens 6 {2360 2373	5)
00 21 E	+22°20′	0	6.11	B8	6-6-6	Set. 3	" incomplete Sens 6 {2374 2378	5)
						Set 7	16/20	

4 pW loaded

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Date Mon Sep 7-8/64 **Observer** Hd - Hr **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27761	HD 187691	19 46.2	+10 10	I-25	IIaO	008	20.6	2139	21 59	2
27762	HD 205372	21 50.9	62 05	"	"	016	20.4	22 10	22 36	3
	"					"		22 36	23 02	
	"					012	20.7	23 02	23 36	
27763	"	"	"	"	"	"	20.3	23 36	00 10	4
	"	"	"	"	"	"	20.7	00 10	00 44	
	"	"	"	"	"	"	20.7	00 44	01 10	
27764	"	"		"	"	016		01 45	02 01	1
	FOCUS TEST OTB					"				
								256		

Dome Temp. 64 F

Focus 1548

Dome Temp.

Transparency Conditions Clouds earlier. 0300 Clear

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
W 1h 00	.10 20	0	5.3	F8	6-5-8	Ret 5 Std rel.	
E 2h	62 25	0	T	B2	4-4-4	" 2 Alt 5.3	
E 0h		1	T	"	4-4-4	" 5	
W 0h		1			5-5-5	" 8	
0 10 W		1			5-5-5	" 2	
0 14 W	"	1-2		"	5-5-5	" 5	
1 23 W	"	1	"	"	5-5-5	" 7	
3 W	"				3-6	" 2	
					10/8	" 9	Start to set

IF Hood

Date Fri Sept 11-12/64 Observer Mt - Mt Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27765	HD 176318	18h 54.6m	+38° 07'	I-25	II a 0 b	set .008	20.3C	20:00	20:32	2
27766	HD 186547	19 40.0	+13 03	"	"	.008	20.0C	20:39	21:24	3
27767	HD 193964	20 18.0	+61 56	"	"	"	19.8°	21:34	21:55	4
27768	HD 207990	21 48.1	+61 09	"	"	"	"	22:08	23:47	1
27769	HD 225269	23 59.9	+60 46	"	"	"	"	23:52	0:07	2
27770	HD 222847	23 37.0	-15 50	"	"	"	"	0:18	0:42	3
27770F	HD 3765 Focus test	00 35.3	+39 40	"	"	"	"	0:57	1:15	4

Dome Temp. 62°

Focus 15.47

Dome Temp. 52°

Transparency Conditions some cloud about consistently
Held up at 1:00 by clouds

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
44m W	+38° 13'	0	5.70	B8	6-6-6	set 5 B8-B9 wt d & e seq 8 {2473 2478}	fine good
1.06 E	-13° 14'	0	6.07	B8	6-6-6	set 5 " seq 6 {2477 2434}	fine
2.43 W	+62 07	0	5.59	B9	6-6-	set 5 " seq 6 {2485 2490}	v. stormy wind
1.33 W	+61 25	0	7.2	Am	6-6-6	set 5 Am. star seq 7 {2491 2501}	
2.8 E	+61 04	0	5.85	B9	6-6-6	set 5 B8-B9 wt d & e seq 6 {2508 2512}	last one good
0.07 W	-18 27	0	5.21	B8	6-6-6	set 5 " seq 5 {2509 2514}	v. stormy
0.31 W			8.2	K5		set 5 Sh. Vel. seq 8 {2515 ~~2555~~}	wind

Clouds. Closed up 1:20

Echo II in east at 01:04 (into earth's shadow)

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Date ~~Sat-Sun, Sept 12-13/64~~ **Observer** Mt ~ Fl **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27772	HD 203638	21h 18.4m	-21 16	I-25	IIaOb	set .008	16.2°C	21:50	22:53	1
27773	40 2130 14	22 23.4	+16 46	"	"	.008	16.1	23:05	02:27	2
27774	H.D. 25291	4h 01m.3 (1965)	59° 04' (1965)	"	"	0.008		02:45	02:52	3
							"	02:54	03:07	"
								03:10	03:21	"
27775	H.D. 19243	03 00.7	+62 00	"	"	"	16.0	03:38	03:58	4
27776	H.D. 21650	03 24.6	+41 25	"	"	"	16.0	04:09	04:42	1
~~27777~~	H.D. 28497	04 24.5	-13 17	"	"	"	"	04:50	05:15	2
	FOCUS TEST									

Dome Temp. 55°

Focus 15.52 - .11 = 15.41

Dome Temp. 50° (torr)

Transparency Conditions Some light cloud, otherwise good
2nd Half – Excellent transparency

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0:42 W	-21° 00'	0	5.5	gK2	6-6-6	refs Std Vel sens 6 {2570 2528	1 one guid.
3:13 W	+17 05	0	8.5	G8	6-6-6	refs " sens 8 {2529 2569	
01:57 E	+59 03	1	5.07	F0	18	set 2 HR 1242 sens 5 {2573 2576	
01:42 E	"	1	"	"	18	Set 5 " " sens 5 {2576 2583	
01:29 E	"	1	"	"	-	Set 8 " " Sens 5 {2583 2593	
00:03 W	+62° 13'	1	6.5	B2e	6-6-6	Set 5 Be Program Sens 7 {2594 2606	
00:15 W	+41° 36'	0-1	7.2	B5ne	6-6-6	Set 5 " " Sens 7 {2607 2619	
00:00 (E W)	-13° 08'	0	5.5	B3ne	6-6-	Set 5 " " [NO INDICATION OF SKY ON EXPTE AT EXPOSURE END] Sens 6 {2623	
						Set 9	21 cc

3 P.H. loaded

Some trouble with D.A. Clamp and tracking at eastern hour angles

Note: Mr. D. Crampton and Miss H Neen married this day. (12th)

Date Sun Mon, Sept 13-14/64 **Observer** Mt - MCl **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.
27778	HD 176318	18 54.6	+38 07	I-25	II 06	red .008	18.2°C	19:57	20:15	3
27779	HD 186547	19 40.0	+13 03	"	"	.008	11.	20:21	20:43	4
27780	HD 203536	21 18.4	-21 16	"	"	"	"	20:52	21:29	1
27781	HD 213014	22 23.4	+16 46	"	"	"	"	21:40	00:34	2
27782	HD 584	0h 5.2	+56° 36′	"	"	"	17.9°C	00:55	01:11	3
27783	HD 9612	1h 29.2m	+73° 47′	"	"	"	18.0°C	01:20	01:30	4
27784	HD 10293	1h 35.6m	+58° 08′	"	"	"	"	01:36	01:50	1
27785	HD 11291	1h 45.8m	+50° 18′	"	"	"	"	01:56	02:04	2
27786	BD +47° 781	3h 06.4	+47° 43′	"	"	"	"	02:18	03:34	3
27787	HD 19698	3h 5.2m	+11° 30′	"	"	"	"	03:43	03:55	4
27788	HD 21933	3h 27.1	+9° 2′	"	"	"	"	04:01	04:11	1
27789	HD 23258	3h 38.6	+20° 37′	"	"	"	"	04:22	04:32	2
27790	HD 27742	4h 17.6	+20° 45′	"	"	"	"	04:39	04:55	3
27791	HD 27777	4h 18.0m	+33° 54′	"	"	"	"	05:01	05:09	4
	Focus Test									

Dome Temp. 57°

Focus 15.55 - .11 = 15.44

Dome Temp. 53°

Transparency Conditions Excellent

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
.33 W	+38° 12′	1	5.70	B8	6-6-6	set 5 B8-B9 wide & e sens 6 { 2637 2642	Fair Hazy
.15 W	+13 13	1	6.07	B8	6-6-6	set 5 " sens 6 { 2644 2647	fine
0.38 E	-21 00	2	5.5	gK2	6-6-6	set 5 Std Vel sens 5 { 2654 2657	weak
1h 23 W	+17 06	1	8.5	G5	6-6-6	set 5 " sens 8 { 2660 2700	
0h 17m W	+56° 58′	1	6.49	B8	6-6-6	Set 5 B8-B9 Sens 6 { 2703 2707	Hazy
0h 49m E	+74° 06′	2	6.37	B8	6-6-6	Set 5 " " Sens 6 { 2709 2713	fine
0h 33m E	+58° 24′	2	6.19	B9	6-6-6	Set 5 " " Sens 6 { 2715 2719	Hazy
0h 31m E	+50° 34′	2+	5.62	B9	6-6-6	Set 5 " " Sens 6 { 2722 2726	
0h 21m E	+47° 56′	2	8.5	G5	6-6-6	Set 5 Hd + F binary Sens 8 { 2729 2761	
0h 03m W	+11° 43′	1-2	5.89	B9	6-6-6	Set 5 B8-B9 Sens 6 { 2764 2768	fine
0h 04m E	+9° 14′	2	5.59	B8	6-6-6	Set 5 " " Sens 6 { 2771 2775	
0h 50m E	+20° 48′	1-2	6.01	B9	6-6-6	Set 5 " " Sens 6 { 2777 2781	Hazy
0h 11m E	+20° 53′	1	5.87	B8	6-6-6	Set 5 " " Sens 6 { 2783 2787	fine Hazy
0h 3m W	+34° 03′	1	5.53	B9	6-6-6	Set 5 " Sens 6 { 2789 2795	Hazy
					20/16		

1 PH Loaded

Sat. Night Visitors – 3!! groups — All saw "Universe" and 74" Telescope.
Sept 19. ~170 people. (>90 for second group so split)
Fl, McL, Clz.

Date.......... **Observer**.......... **Julian Day**..........

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.

Sept 14–23/64 74" shut down for installation of the Grating spectrograph. This involved a considerable job of re-balancing and re-wiring among many other details. About 3 workable nights were lost

Hd – L

Dome Temp. .....

Transparency Conditions ....

Focus .....

Dome Temp. .. ..

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality

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Date Sept 22-23/64 **Observer** HdL MR **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.
		1960	1960							
27790	S Cyg	22 09.5	+58 00	G10	IIaD	6		21 58	22 11	I
27791	"	"	"	"	"	"		22 19	22 49	II

Dome Temp. +61

Transparency Conditions Good

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
E 0h 2m	58 04	0	4.86	K1 Ib	2-2-2	~~Bright star from GH exit about 9-10 min effectively transm.~~	
W 3h 2m	"	0	"	"	2-2-2	" " very little spectrum. Both these wrong!	

Date Sept. 25-26, 1964 **Observer** El-L; **Julian Day**

Plate No.	Object	R.A. ~~1900~~ 1960	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27790	α Lyr	$18^h\ 35.^m6$	+38° 45′	G10	IIaO	6		19:29	19:30.5	3
27791	"	"	"	"	"	6		21:19	21:20	3
27792	α Cyg	20 40.1	+45 08	G10	"	6		22 05	22 09.30	3
Sept 27 1964			Tests for slit width (7a arc only)							
27791 T_1					reading =	7 small divs. (probably reading 6)				A
27791 T_2					"	9 " "			8	B
~~27792 T_3~~					"	11 " "			10	C

— for 27791 T_1 a doublet with separation 19μ is well
" 27791 T_2 this doublet is just resolved
No slit setting small divs against the

Dome Temp. 54°

Focus

Dome Temp.

Transparency Conditions Good-but some very thin cloud patches at times. ++min haze.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
00:56W	+38° 45′	1	+0.04	A0	6	Seeing went bad near one edge during trail. Exposure time not too accurate; time = one very slow trail along slit. (W → E) Developed in Acufine 10 min at 62°F. Plate a little weak. Later found ¼" periscope prism was occulting ~½ of light beam. Exp Time = 1 min.	
02:46W	"	1	"	"	6	Timed exposure = 1 min to trail ∴ above has same exposure – prism now out of beam. 10 min in Acufine at 63°F. Plate broke while in plateholder. No. Good.	
		1	+1.35	A2	6	very weak – no good.	
					6 s		
					4½ s		
Plate Broke in P.H.					3 6/10 s		
reversed							
black index should be					OK		

297 Sept. 26 – Visitors ≅ 170 – Clouds. Showed "U" and 74".
-Fl, Hw & Cc.

Date Sept. 27/28 Sun-Mon **Observer** HG Hd **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27792	α Aql.	19 48.5 (1960)	+ 8 46	G10	IIaO	small diss 9	54	20:34:15	20:36:15	A
27793	β Aql	21 29.5 (1960)	−05 45	G10	"	"	50	20 56 30	21 08	B
27793.1	Test for slit width			G10	"	12				C
27794	α Psc	23h 02m.0 (1960)	+14° 59'	"	"	9	47°F	22.30.15	22 44	A
27795	α Cas	00h 36m.2 (1960)	+56° 09'	"	"		"	23 45	23 51	A

Dome Temp. 54

Focus

Dome Temp.

Transparency Conditions 2056 - 2107

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
20: 57W	+58° 45'	0	B=0.94	A7 IV-V	5	Bright star for test. (2 min exp)	weak
E 18 m	−05° 44'	0	3.68	GO	5	Std Vel. Stan (see IAU Trans. vol IV p 402) cloudy at 2103	weak
					4	The 13h doublet is not readily resolved	wide
E 9 m	+15° 20	0	2.47	B9.5	5	Bright star Ended by cloud	good
E 35 m	+56° 22'	0	B= 3.34	KO	5	Bright star. Std. vel. Stopped by cloud Drizzle !	Plate bad in PH no good
						All developed except last one. Developed 10 min at 63° = but it must be too weak. It is in PH A in top dark drawer.	

-Hr

Date Sept 28-29 '64 **Observer** Ch MR- MS, FP **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27795	γ Cyg	$20^h 20^m 8$ (1960)	$+40° 08'$	G10	IIaO	9	50°	20:12c	20:50	A
27796	ε Peg A	$21^h 42.2$ (60)	$+9° 4'$ (60)	"	"	"	48°	21:05	22:35	
27796F	Frens Test			"		9				
27797	α Tri.	1960 01 50·8 1900 01 47.4	1960 +29 23 1900 +29 06		"	"		0039	0107	B
27797 T_1	Sky spectrum			G10	IIaO	9 short slit		30s on sky (Haze)		V

300

Dome Temp. 52

Focus

Dome Temp.

Transparency Conditions

0045 Clouds

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
43m W	+40° 08'	0	2.88	F8	2-2-2		
37m W	+9° 45'	0	3.86	K2 Ib	2-2-2 6/6	Some light cloud.	good
0030=			3.91	F6 IV	2-4	Ark Murray 7. should turn knurled crosshouse ring about 1/6 turn for minutes. centre & prism	
						PH "A" loaded IIa0	
at	1430 E37	Sulc 29			5		at
						xTi, 3Ti, xTi 15m	

Date Sept. 29-30/64 Observer Fl, Mt – Hv Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Dome Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.
2798	χ Oph	$17^h\ 30^m.3$	+12° 38′	G10	IIaO	9	55°	19:10	19:25	C
2799	π Per HD 212571	22 20.2 (1900) 09 34.8 (1960)	+00 52 +55 59 (1900)	"	"	9	52°	20:19	23:55	C
2800	α Cas	$0^h\ 38^m.2$ (1960)	+56 19	"	"	"	50°	00 46	02 18	B
2801	α Cet	03h 00.2 (1965) 02 57.1 (1900)	+03 56 (1965) +03 42 (1900)	"	"	"	49°	02 37	04 59	C

Dome Temp. 61°

Focus .....

Dome Temp. .....

Transparency Conditions ..a bit hazy, no clouds (1900)

0315 A few clouds

*0435 Seeing Very Poor

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
$2^h\ 10^m$ W	+12° 35′	0	M_W=2.14 M_{pg}=2.28	A5 III	2-2-2	Interstellar Line Prog. | Floating badly in R.A. (2h W)	
00h 02m W	+ 1° 12′	1	M_V+.44 M_{pg}-.45	B1p	2-2-2	" " "	
[illegible]	+56° 22.5	1+	3.34	K_0 II-III	2-2-2	Std. Vel.	
02 19 W	+03° 56′	0-1*	4.17	M_{2+} III	2-2-2	" " EXPOSED CHART IN INSTRUMENT BOX	
						3 EMPTY P.H. IN DOME (N.P.)	
						1 "EXPOSED PLATES" BOX IN DOME (N.P.)	
						7 UNEXPOSED PLATES II-O IN DARK RM.	
						2 EXPOSED " " "	

Ri = Ricc

Date Sept 30-Oct 1, 1964 **Observer** Fl, Ri – Hr **Julian Day**

+ 4th YR LAB STUDENTS UNTIL 20:30

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I.
27802	α Oph	17h 30m.3	+12° 33′	G10	IIaO	9(long	52°	18h:43m	19h 14m	A
27803	γ Cyg	20h 20m.8 (60)	+40° 08′ (60)	G10	"	9(short)	50°	19h.36m	20h 06m	B
27804	ε Peg A	21 39.3	+9° 25	G10	"	9(")	49°	20h 40m	21h 40m	C
27805	α Ari	2h 01m.5	+22° 59′	G10	"	9(")	45°	22h 57m	23h 57m	A
27806	α Cas.	00 34.8	+55 57	"	"	"	43°	00 21	01 17	B
27807	β Tri.	02.07.2	+34 48	"	"	"	42°	01 31	02 01	C
27808	α Per.	3h 17.2	+49 30	"	"	"	42°	0257	0315	A

Dome Temp. 52°

Focus .....

Dome Temp. .....

Transparency Conditions ~~Excellent~~ Good (18:40) (20:50) " (22:30)

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2h 03m W	+12° 31'	0	2.28	A5III	2-2-2	Interstellar Line Program	
0 08 W	+40° 09'	0	2.88	F8III	2-2-2	"	
1 20 W	+9° 43'	0-1	3.86	K2Ib	2-2-2	Bright Std Vol.	
1 46 E	+23° 17'	0-1+	3.15	K2III	2-2-2	" " "	
1 01 W	56 21	0-1	3.34	II-III K0	2-2-2	" " "	
[illegible]		0-1	3.13	A5III	2-2-3		
0 15 W	49 44.5	0-1	2.28	F5 Ib	2-2-2	" " "	
						3 Empty P.H. in N.O.	
						No More Plates	
						Unit 17, focus at real end. why?	

Date Oct 1-2 Thurs. /64 Observer L·Re-Mt Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.I
27809	α Oph	17 30 3	12 38	G 10	13 ahd IIAO	9 long	57	19 06	19 20	A
27810	HD 194093 ζ Cyg	20 20 8 (60) 20 18.6 (00)	+40 08 (60) +39 56 (00)	G 10	"	9 short	56	19 32	19 46	B
27810 F	Focus Test			"	"					C
15 sec low	Photographic tests for collimation									
27811	HD 3712 ζ Cas	00 34.8	+55 59	"	"	9 long	55	22:36	23 16	A
27812	HD 12929 α Ari	02h 01m 5 .960	+22° 59' 12'-	G10	IIAOb	9 short	55	23 31	00:01	B
27813	HD 13161 β Tri	02 02 03.6 (00)	+34 31 (00)	"	"	9 short	55	00 25		C
27813	"	"	"	"	"	"	"	01 07	01 17	A

Dome Temp. 58°F

Transparency Conditions Good. Wind from SE

Focus .....

Dome Temp. .....

Observers! pay more attention to dec slow motion screw, to close to the end. 0025 Clouds

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
2 14W	12 36	0	2.28	A5 III	2-2-2	Münch's std	weak.
0 09E	40 09	0	2.88	F8 Ib	2-2-2	Focus had been C to vi big 4μ. ∴ Turned big knob clockwise ½ turn or 60°	weak.
					6/6	This test now shows C to red very slightly, so turned big knob, counter-clockwise about 24°. (Correct?)	a bit slightly fi...
0 57E	56 22	0	3.34	K0 II-III	2-2-2	Bright Std. Vel. stars	strong
1 35E	+23 18	1	3.15	K2 III	2-2-2	Bright Std Vel stars	strong
			3.13	A5 II	2-4		nothing
0026 E			3.13	"	2-4	0025 Clouds cleared by 0100	very weak
						01:15 Clouds again	
						Closed up	
						2 Plt loaded in fridge	
						(but Two plates with bumbles)	

3 307

Date Oct 2/3 1960 **Observer** vdB HV **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
347-3112	51 Peg	22 55.7	+20°35'		5/4/3	28		2348	
347-3113	R2 Ari = 45 Ari	2h 53	+18 10		5/5/3	28		0018	
347-3114	$\{^2$ Cet	02 26.2	+08 18		5/5/3	28		0112	
347-3115	"	"	"		"	"		0130	
3116a	"				6/5/3	28		0142	
3116b	"				"			0150	
3117a	K Cet	03 17.7	+03 14		3	28		0205	
b	"	"	"		"	"		0213	
347-3118	χ IIc	03h 32'	+17 54		6/5/3	28		0235	2 x + SN
3119	χ III	"	"		6/4/3	28		0305	2 x + SN

Dome Temp. .....

Focus .....

Dome Temp. .....

CO_2 in 2330

V = 700

Transparency Conditions ... ok

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
		4"	553	G5V		Time constant test	
		4"	5.9	M6III		V+V Siltws.	
00h 20m E		4"	4 27	B5III		Smoked	
		"	"	"		3500 – 2200 "A"	
0h 15m W						uv without Siltw	
		"	"	"		uv with UG2	
			482	G5V		uv without Siltw	
			"			uv with UG2 Siltw	
0h 20m E			6	G2V		IX O I II III	
0h 05m W			"				

309 1/30 visitors, showed M15 Dm, Mt, Sm

Date Oct 3/4, 64 Sat/Sun **Observer** Mt – Hb **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	I
27814	HD 222368 i Psc	23h 39m.8	+05° 05'	610	IIaOb	short	56°F	21:36	00:06	B
27815	HD 1516 ϕ Per	1h 37m.4	+50° 11'	"	"	"	55°	00:22	01:22	C
27816	HD 12929 α Ari	2h 01m.5	+22° 59'	"	"	"	55°	01:37	02:00	B
27817	HD 18884 2 Cet	2h 57m.1	−03° 48'	"	"	"	55	02:11	03:50	C
27818	HD 20902 ω Per	3h 17m.2	+49° 20'	"	"	"	54	04:04	04:13	C
27819	HD 29139 α Tau A	4h 30m.2	+16° 19'	"	"	"	54	04:24	04:26	C
27820	"	"	"	"	"	"	"	04:30	04:37	B
27821	HD 36673 ω Lep	5h 28m.3	−17° 54'	"	"	"	55	04:51	05:09	C
27822	HD 62509 β Com	7h 39m.2	+18° 16	"	"	"	54	05:22	05:28	B
27823F	Focus Test									

Dome Temp. 56°

Focus —

Dome Temp.

Transparency Conditions Excellent

Found P.14 Blad a broken plate in it. (before exposing)
03 WEST : SEEING VERY POOR.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
01.02W	+05°22′	0	4.8	F7V	2-1-2	Bright Std. Vel. (only one Pl)	fine
00.32E	-50°31′	0	3.95	B0p	2-1-2	Special Standard G10	very strong
00.29W	-23°17′	0	3.15	K2III	2-1-2	Bright Std. Vel.	strong
01.24W	+03°58′	0	4.17	M2III	2-2-2	" " "	strong
01.26W	+49°44	0	2.28	F5Ib	2-1-2	" " "	strong
00.27W	+16°26′	0	1.38	K5III	3-3	" " " } 2 min	fine
00.28W	"	0	"	"	2-1-2	" " " } 7 min	strong
00.13W	-17°50′	0	2.62	F0Ib	2-1-2	" " "	fair
01.40E	+27°07′	0	2.18	K0III	2-1-2 (Yellow)	" " "	strong
In-	In/ out-	out	?		5?		fair

2 unloaded plate holders in north side.
7 unexposed plates in north side
9(?) exposed " " darkroom
→ Use a new "EXPOSED PLATES" box

Date Sun Oct 4-5/64 **Observer** Hd **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P
27822T	Test of filter — GG18 over one (east side) comparison									E
27823	HD 156719 & Aql	19 41.5	+10 22	G10	IIaO B	8 (short)	44	21 43 23	22 29	E
27824F	Focus test	Sun - Sun/Cut - Sat								E
20cc replen										
	Sun/Tues Oct 5-6/64									
	Photographic test for collimation after shims inserted in optics									E
	Collimator now removed									
	Plates as at right →									
	Tues - Wed Oct 6-7/64 Hd - L									
	L had moved the optical plate in two directions to try to cure lack of collimation a test showed it would do. ~~any~~ another adjustment resulted in perfect collimation i.e. like this →									

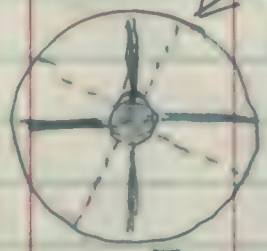
Dome Temp. 46 F

Transparency Conditions .....

Focus .....

Dome Temp. .....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
– previn, other bare					5	full aperture - both comp & star	fine
W3 13	+10 33	0-1	4.15	K3 II	2-2	GG 18 filter now in front of 2-2 Comp not centered. Guided out.	weak
					5/5		fine
						Where is PH. A?	
						4 plates in unexposed box in dome	
collimate.						PH B & C in dome.	
						Joan – Please number both unexposed & exposed boxes (1, 2, 3 each) using the plastic label maker.	
						JG 4/84	



Diffraction pattern of Cas. secondary is concentric with pattern of the small mirror and its supports in the collimator.

Date Oct. 6-7, 1964 **Observer** F2, Dg, Mcl. – Hr **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27824F	Focus Test			G10	IIaO b	9				A
27825	HD 206718 ε Peg. A	21 39.3	+9° 25	"	"	" short		20'52	21'52	B
27826	HD 3712 α Cas.	0h 34.8	+55° 59'	"	"	"		22'14	22 54	C
27827	ψ Per	1h 37.4	+50° 11	"	"	"	38°	23 06	23 46	A
27828	HD 12929 α Cet.	2h 57.1	+03° 42	"	"	"	35° F	00 41	02 24	B
27829	HD 29248	4h 31.3	−02° 33	"	"	"	32°	03 02	03 [illegible]	C
27829F	Focus test after moving plate away from mirror									C

15cc supplem.

Dome Temp. 37°

Transparency Conditions Clear

Focus

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
					5-5	Centre to violet.	
1° 05.5N			3.86	KIIb	2-2-2	Bright Std Vel.	fine.
0 57 E	+56° 22′	0	3.34	KOII-III	2-2-2	" "	strong Lucals.
1h 09m E	+50° 29′	0-1	3.95	BOp	2-2-2	Special Star for G10	
00 10 W	03 56 W	0	4.17	M2III	2-2-2	Bright STD. VEL.	
0 11 3 W		0-1	4.12	B2III	2-2-2	Intensities of Line Pairs.	
by 1/4 rev and turning S screw in 5-5						1/6 N screw out 1/6 turn.	C to Vi in Vi OK in red
re-calculation showed probably moved it wrong way in H.A.							

315

Wed

Date Oct 7-8/64 Observer Rc Cn Hd — Hs Julian Day

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27830	HD 186791 δ Aql	19 41.5	+10 22	G10	IIaO B.	9 long	43F	18 56	7:40	A
27830F	Focus Test after	moving plate away from meniscus by 1/6 rev and moving N screw in 1/3 rev = 5 screw out 1/3 rev								C
27831	HD 206778 ε Peg A	21h 39m 3	+9 0 25'	"	"		42°F	20 02	20:38	A
27831F	Focus test after	moving N screw out 1/12 rev + S screw in 1/12 rev								A
27832	HD 103516	23 34.8	+05 05	"	"	long		20:54	23:10	C
27833	HD 18634	01 37.4	+50 11	"	"	long	42°F	23:27	00:17	C
27834		2h 57.1	+03 42	"	"	"			3:56	
27835	HD 22115	4h 31.3	-05 33	"	"	"	40°	02:31		C
Thurs Oct 8	Focus Test	Tilt by moving N screw out 1/12 rev, S screw in 1/12 rev.								
27835F	Focus Test	In-In / Out-Out.								C
	Tilt	nearly perfect		Centre		turned about 5/6				
		Should turn knob 1/6 rev		counter clockwise						

Dome Temp. 43

Focus

Dome Temp.

Transparency Conditions Excellent

0230 clouds

Thin clouds for last 2 hr.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
[illegible]	-12 31	1	4.15	K3 II	2-2-2	Bright Std Vel star (probably underexposed)	weak
					7-7	sl. ct+vi in red, v. sl. ct+ in vi	
0 14 E	+09° 44'	1	3.86	K2 Ib	2-2-2	Bright Std Vel. star	strong
					7-7	ct+0 vi ! ⇒ Platelholder different ! ⇒ use plateholder	
0 22 W		1	4.8	F7 II	2-2-2	Bright Std Vel	
[illegible]	+50 31	1	3.95	B0 p	2-2-2	Special Stars	
[illegible]		1	4.17	M2 III	2-2-2	Bright Std Vel	poor focus / poor guiding
[illegible]	-03 25	1	4.12	B2 II	2-2-2	In. Std. Late Imp.	weak.
						ONE of last two plates BROKEN	
					5-5		

317 180 visitors, mostly cloudy, closed "to the visitors" Ck, int, ou.

Date Sat Oct 10–11/64 **Observer** Ck FR **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
~~Sat. Oct. 10, 1964~~										
27836F	Focus Test		In. In/Out-Out.							C
			Knot advanced 6 per cent clockwise							
							Temp 41°F			
27836	HD 12929 2 Ari	2h01.5m	+22°59'	G 10	IV aOB	9	34°	01h23.2m	02 03	C
27837	HD 20902 2 Per	3 17.2	+49°30'	"	"	"	33°	02 28.6	02 40	C
27838	HD 22248 2 Eri	4h21.3m	−03° 39'	G 10	A "	9	32°	03 00.3	04 15	C
27838F	Focus Test		In. In/Out-Out							

26 cc expended

Note The present focus corresponds to ~~the~~ a setting of 2.50 on the improvised scale. Read the 2½ on the small drum-shaped scale and the .50 on the disk-shaped scale, using the brass edge as an index. JFH

Edo I: 03:45 in NH passenger

Dome Temp. 33° F

Transparency Conditions Good

Focus .....

Dome Temp. .....

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
					5-5		sl. centre to violet
2 exp. is violet but mostly in violet and hence till over. (Fl) [Developed]							
1h 00m W	+24° 19'	0	3.15	K2III	2-2-2	Bright Std. Vel. [all developed]	fine
0 21 W	+19 44	0	2.23	F5Ib	2-2-2	(bright cloud) " " " Telescope stirred in dec at 1st exp.	fine
0 34W	-03 23	0	4.12	B2III	2-2-2	"some cloud at beginning" Tutenstellar line Berg. Clouds at 0+10	fine
					5-5	Clouded Out.	This from nearly perfect!
Send the 2d for [illegible] for second half hour.							

Hd Mcl vdB

Date Sun Oct 11-12/64 **Observer** ~~Mcl~~ Mse −H5 **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27839	HD186791 & Agl.	$19^h 41.5$	+10° 22′	G10	IIaOB	9		18 37 13	19:03	C
348-3120	α Lyr	18 35 7	+38 45		4/4/3	28		19 16		
348-3121	HD187923	19 50 5	+11° 34′		7/4/5	28		19 47		
348-3122	HD186408	19 40 9	+50 25		6/5/5	28		20 18		
348-3123	HD186427	19 40 9	+50 25		7/4/5	28		20 33		
348-3124	HD217014	22 55 2	+20° 35′		6/5/5	28		21 40		
27840	Φ Per HD10516	1 37.4	+50	11 G10	IIaOB	long 9 short	39	21 40 15	22 10	C
27841	11	11	11	11	11	9	39	22 14 15	22 44	7
27841F	Focus Test		m-in/out-out.			Setting 3.50 short		9		C
27842	HD19275	03 01.1	+74 01	G10	IIaOB	9 short	38°	23 20 40	00 52	C
27843	HD 34787	05 14.9	+57 27	11	11	11	37°	01 08 40	03 08	13
27844	75 HEG	$08^h 45.2$	+62° 20	11	11	11		03:27 25	04 17	C
17 c spectrum										

Dome Temp. 48° CO_2 in 1800± Transparency Conditions AOK

Focus V=700

Dome Temp.

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0h 23m W	+10°32′	2	4.15	K3II	2-1-2	Beg'n Std vel. Developed	Low.
01 50 W			0 04	A0 V		Ex. T. ST	
01 15 W		3"	6 15	S2 V		SSS T3, T4 exp	
01 50 W		2"	5 96	S2 V		SSS upper left	
02 05 W		3"	6 20	S5 V		SSS	
00 45 E		3"	5 51	S5 V		SSS	
Σ 2h 27m	50 31	2	3.95	B0p	2-2-2	Hdl'n *	fine
Σ 1h 53	"	2	"	"	2-2-2	" The plate was caught between the pins. Probably fine but bad focus. R.H.A defective? Slit tilted slightly to read Lowell	
					5-5		
01 10 E	+74 16	2	4.89	A2	2-2-2	Interstellar Lines Poor	fine
01 07 E	+[illegible] 20	2	5.25	A0	2-2-2	"	fine for prog.
[illegible] 30 E	62 07	1-2	5.72	gF0n	2-4	" 0345 Clouds in S.W. 0410 Clouded out from N.W.	work
						2 or 3 plates = wide pairs for a Hamma	
						Box of 22 " " " in red	
						drawer of electromagnets	

321 CLASS VISIT ! 24 ~~Ld~~, Ca, Fl, Dm showed Saturn to 40 ; students

Date Tues-Wed Oct 13-14 1964 **Observer** Ca – Hs **Julian Day**

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.	P.H
27845	HD 222568 c Peg	23h 34.8m	405° 05'	G 10	IIaO B	9	49°F	20h 32m 59s	22: 30m	C
27846	HD 3712 α Cas	0h 34.8m	+55° 59'	G 10	IIaO B	9	46°F	22h 42m 18s	23: 18m	B
	Took time to focus the slit motor ~~ran~~ ran out of film									
27847	HD 16516 Ø Per HD 19275	2h 33.9m	+50° 11'	G 10	IIaO B	9	45°F	23h 33m 20s	00 13	C
27848		03h 01.1m	+74° 01'	G 10	IIaO B	9	44°F	0h 32m 39s	0330	B
27849	ε Cas	1900 0h 40.6m	1900 +63° 00'	"	"	"	42°	1 16 37	0536	C

Dome T
Focus
Dome

Dome Temp. 49°

Focus

Dome Temp.

Transparency Conditions clouds & haze in early evening clearing ~ 20h 322
23h good! Dew forming on dome.
0115 MIST RISING

Hour Angle End	Declination	Seeing	Ptg. Mag.	Sp.	Comp.	REMARKS	Quality
0 06m W	+05° 23'	0-1	4.8	F7V	2-1-2	Bright Std. Vel. Stars	fine
0 18 E	+56° 21'	0-1	3.34	K0III	2-1-2	" " "	& strong
[illegible]	[illegible]	[illegible]					fine
[illegible]	+50° 31'	0-1	3.95	B5p	2-1-2	Special Star (10 min)	
[illegible]	[illegible]	1-2 00*	4.29	A2	2-2-2	Interstellar Line Program guiding	floating
[illegible]	[illegible]	0+	[illegible]	F2	2-2-2	star from Observers Handbook. guiding	fine

*0125 VERY MISTY/FOGGY

0 did not find the 2 or 3 plates referred to on previous page
0 One plate late, scarcely enough after loading in the dark.

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Date..... **Observer**..... **Julian Day**.....

Plate No.	Object	R.A. 1900	Declination 1900	Inst.	Emulsion	Slit	Temp.	Starting Time E.S.T.	Ending Time E.S.T.
2									
2									
2									
2									
2									

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